

1977

Heider's Five Levels of Causality and Assignment of Responsibility by Actors and Observers.

David Conner Blouin

Louisiana State University and Agricultural & Mechanical College

Follow this and additional works at: https://digitalcommons.lsu.edu/gradschool_disstheses

Recommended Citation

Blouin, David Conner, "Heider's Five Levels of Causality and Assignment of Responsibility by Actors and Observers." (1977). *LSU Historical Dissertations and Theses*. 3148.

https://digitalcommons.lsu.edu/gradschool_disstheses/3148

This Dissertation is brought to you for free and open access by the Graduate School at LSU Digital Commons. It has been accepted for inclusion in LSU Historical Dissertations and Theses by an authorized administrator of LSU Digital Commons. For more information, please contact gradetd@lsu.edu.

INFORMATION TO USERS

This material was produced from a microfilm copy of the original document. While the most advanced technological means to photograph and reproduce this document have been used, the quality is heavily dependent upon the quality of the original submitted.

The following explanation of techniques is provided to help you understand markings or patterns which may appear on this reproduction.

- 1. The sign or "target" for pages apparently lacking from the document photographed is "Missing Page(s)". If it was possible to obtain the missing page(s) or section, they are spliced into the film along with adjacent pages. This may have necessitated cutting thru an image and duplicating adjacent pages to insure you complete continuity.**
- 2. When an image on the film is obliterated with a large round black mark, it is an indication that the photographer suspected that the copy may have moved during exposure and thus cause a blurred image. You will find a good image of the page in the adjacent frame.**
- 3. When a map, drawing or chart, etc., was part of the material being photographed the photographer followed a definite method in "sectioning" the material. It is customary to begin photoing at the upper left hand corner of a large sheet and to continue photoing from left to right in equal sections with a small overlap. If necessary, sectioning is continued again — beginning below the first row and continuing on until complete.**
- 4. The majority of users indicate that the textual content is of greatest value, however, a somewhat higher quality reproduction could be made from "photographs" if essential to the understanding of the dissertation. Silver prints of "photographs" may be ordered at additional charge by writing the Order Department, giving the catalog number, title, author and specific pages you wish reproduced.**
- 5. PLEASE NOTE: Some pages may have indistinct print. Filmed as received.**

University Microfilms International

300 North Zeeb Road

Ann Arbor, Michigan 48106 USA

St. John's Road, Tyler's Green

High Wycombe, Bucks, England HP10 8HR

78-7539

BLOUIN, David Conner, 1948-
HEIDER'S FIVE LEVELS OF CAUSALITY AND
ASSIGNMENT OF RESPONSIBILITY BY ACTORS
AND OBSERVERS.

The Louisiana State University and
Agricultural and Mechanical College, Ph.D., 1977
Psychology, social

University Microfilms International, Ann Arbor, Michigan 48106

HEIDER'S FIVE LEVELS OF CAUSALITY
AND ASSIGNMENT OF RESPONSIBILITY
BY ACTORS AND OBSERVERS

A Dissertation

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

in

The Department of Psychology

by

David C. Blouin
B.S., Baylor University, 1970
M.A., Louisiana State University, 1973
M.Ap.Stat., Louisiana State University, 1976

December 1977

ACKNOWLEDGEMENTS

The author extends his thanks to the members of his committee, doctors Nathan Gottfried, Robert Coon, Irvin Lane, and Prentiss Schilling, for their assistance in the writing and evaluation of this study.

The author especially appreciates the guidance and work of the committee chairman, Dr. Perry H. Prestholdt, from the initial conceptualization of the project to its completion.

TABLE OF CONTENTS

	Page
A. TITLE	i
B. ACKNOWLEDGEMENTS	ii
C. TABLE OF CONTENTS	iii
D. LIST OF TABLES	v
E. LIST OF FIGURES	vi
F. ABSTRACT	ix
G. INTRODUCTION	1
1. Overview of Attribution Process	3
2. Overview of Attribution Research	10
3. Literature Review	16
4. Development of Resolution	32
5. Statement of Objectives	67
6. Derivation of Hypotheses	71
H. METHOD	77
1. Subjects	77
2. Construction of Action Situations	77
3. Procedure	84
4. Design	88
I. RESULTS AND DISCUSSION	89
J. GENERAL DISCUSSION	131
K. REFERENCES	152

Table of Contents (cont'd)

	Page
L. APPENDIX A	155
M. APPENDIX B	159
N. APPENDIX C	162
O. APPENDIX D	163
P. APPENDIX E	164
Q. VITA	165

LIST OF TABLES

Table		Page
1	Analysis of variance for observers' assignment of responsibility to actors	91
2	Mean amount of responsibility assigned by actors, observers, and actors with the self-awareness manipulation (SA actors) for positive and negative outcomes at each level of causality and overall: association (Level I), commission (Level II), foreseeability (Level III), justification (Level IV) and intentionality (Level V)	92
3	Mean amount of responsibility assigned by actors, observers, and actors with the self-awareness manipulation (SA actors) for low or high positive or negative outcomes at each level of causality: association (Level I), commission (Level II), foreseeability (Level III), justification (Level IV) and intentionality (Level V)	103
4	Analysis of variance for the amount of responsibility (AR) assigned by actors, observers, and actors with the self-awareness manipulation	119

LIST OF FIGURES

Figure		Page
1	Mean percent foreseeability by level for question, "To what degree could X foresee that his actions would lead to Y?".....	83
2	Mean percent intentionality by level for question, "To what degree was Y X's intention?".....	83
3	Mean percent causality by level for question "To what degree did X's actions cause Y?".....	83
4	Mean percent justification by level for question, "To what degree were X's actions justified?".....	83
5	Mean amount of responsibility (AR) assigned by observers for positive and negative outcomes at each level of causality: association (I), commission (II), foreseeability (III), justification (IV), and intentionality (V).....	93
6	Mean amount of responsibility (AR) assigned by observers at the level of association depending upon outcome valence (positive, negative) and outcome intensity (low, high).....	104
7	Mean amount of responsibility (AR) assigned by observers at the level of commission depending upon outcome valence (positive, negative) and outcome intensity (low, high).....	108
8	Mean amount of responsibility (AR) assigned by observers at the level of foreseeability depending upon outcome valence (positive, negative) and outcome intensity (low, high).....	113
9	Mean amount of responsibility (AR) assigned by observers at the level of justification depending upon outcome valence (positive, negative) and outcome intensity (low, high).....	117

List of Figures (cont'd)

Figure		Page
10	Mean amount of responsibility (AR) assigned by observers at the level of intentionality depending upon outcome valence (positive, negative) and outcome intensity (low, high).....	120
11	Mean amount of responsibility (AR) assigned by actors, observers, and actors with the self-awareness manipulation (SA actors) for positive and negative outcomes at each level of causality: association (I), commission (II), foreseeability (III), justification (IV), and intentionality (V).....	125
12	Mean amount of responsibility (AR) assigned by actors, observers, and actors with the self-awareness manipulation (SA actors) at the level of association depending upon outcome valence (positive, negative) and outcome intensity (low, high).....	126
13	Mean amount of responsibility (AR) assigned by actors, observers, and actors with the self-awareness manipulation (SA actors) at the level of commission depending upon outcome valence (positive, negative) and outcome intensity (low, high).....	127
14	Mean amount of responsibility (AR) assigned by actors, observers, and actors with the self-awareness manipulation (SA actors) at the level of foreseeability depending upon outcome valence (positive, negative) and outcome intensity (low, high).....	128
15	Mean amount of responsibility (AR) assigned by actors, observers, and actors with the self-awareness manipulation (SA actors) at the level of justification depending upon outcome valence (positive, negative) and outcome intensity (low, high).....	129

List of Figures (cont'd)

Figure	Page
16 Mean amount of responsibility (AR) assigned by actors, observers, and actors with the self-awareness manipulation (SA actors) at the level of intentionality depending upon outcome valence (positive, negative) and outcome intensity (low, high).....	130

ABSTRACT

Research findings on observers' responsibility assignment depending upon outcome valence (positive, negative) and intensity (low, high) have been inconsistent. However, research on Heider's five levels of causality suggests that the effect of outcome characteristics depends upon the nature of the interaction between actor and environment as objectively depicted in action situations at each level (association, commission, foreseeability, justification, intentionality). Possibly researchers have found inconsistent effects due to outcome characteristics and inconsistent support for defensive attribution because they used situations representing different levels of causality.

Similarly, research on actors and observers has found patterns of responsibility assignment inconsistent with the differential self-interest motives of actors and observers implied by defensive attribution. Possibly patterns of responsibility assignment reflecting these motivational differences depend upon the nature of the interaction among causal agents at each level of causality. Hence, a major objective was to examine at which levels observed patterns of responsibility assignment by actors and observers would indicate the operation of defensive attribution and self-interest.

Finally, based on the theory of objective self-awareness, a second objective was to determine if increasing actors' self-awareness (SA actors) would affect their responsibility

assignment relative to actors without increased self-awareness.

Sixty male students were observers, actors, or SA actors who were exposed to their visual image via mirrors. For each of 20 hypothetical situations representing a 5 x 2 x 2 factorial arrangement of level, valence and intensity, Ss indicated how much they (for actors) or the central character (for observers) were responsible for the outcome.

Results showed that the effect of outcome characteristics on observers' responsibility assignment depended upon level. At the polar levels of association and intentionality, the effect of outcome characteristics was rather minimal, thereby not conforming to defensive attribution predictions. However, at the intermediate levels (commission, foreseeability, justification), outcome characteristics had an effect. The pattern at the foreseeability level conformed rather well with defensive attribution predictions but only somewhat at the commission level. The pattern at the justification level was opposite to defensive attribution predictions.

Similar patterns were exhibited irrespective of role. As such, the operation of differential perceptual and/or motivational biases implied by defensive attribution, self-interest, and self-awareness was not indicated. The results were interpreted as indicating that irrespective of role, Ss were evaluating the causal interaction at each level and assigning responsibility from an objective detached perspective rather than from differential subjective perspectives.

INTRODUCTION

The attribution process refers to the tendency of an individual to make inferences about the personal dispositions of people whose behavior they have observed. Inferences or "attributions" about a person's attitudes, abilities, motives, and other personal dispositions serve to explain the causal antecedents of the person's behavior. For example, a professor may attribute a student's success (or failure) on an exam to his own effective (or ineffective) teaching or to the student's ability (or lack of ability) in the course.

Over recent years, attribution research has dealt with a wide variety of topics ranging from the attribution of attitudes and abilities to the attribution of opinions and emotions. A general description of the attribution process as viewed by the present author follows. The overall purpose of the description is to focus on one particular area of attribution research, namely research that has dealt with the "attribution of causality" and "assignment of responsibility."

Research on the attribution of causality and assignment of responsibility has revolved around two general issues. The issues may be stated as follows. Given a sequence of events that involves one or more people whose behavior leads to a particular outcome, (1) "What factors influence an individual's 'attributions' about the

cause-and-effect relationships which serve to explain a person's actions and the resultant outcome?" and (2) "What factors influence the degree to which an individual holds the person 'responsible' for the outcome?"

Researchers have assigned a rather general meaning to the concept of "responsibility" in the majority of past research. As viewed in past research, responsibility has not typically been operationally or specifically defined as either "moral" or "legal" responsibility. Responsibility has a more subjective, judgmental, or phenomenological meaning. Simply put, if a person is held responsible, then the person might be thanked for something "good" that happens or blamed for something "bad" that happens. Therefore, in the most general sense, "assignment of responsibility" has referred to what extent a person is phenomenologically credited with the production of an outcome.

Theoretically, attributions of causality and assignment of responsibility are related. The underlying notion in all conceptual approaches to the attribution process is that an individual's assignment of responsibility to a person depends on the individual's attributions about the causal antecedents of the person's actions and resultant outcome. As might be expected, those factors which influence an individual's attributions of causality also influence the individual's assignment of responsibility.

For example, both a professor and a student are normally involved in producing an outcome of student success (or failure) on an exam. The professor may attribute the student's success (or failure) partially to his own effective (or ineffective) teaching ability and partially to the student's ability (or lack of ability), and in turn, hold himself and the student partially responsible for the student's success (or failure) on the exam.

Overview of the Attribution Process

The following discussion of the attribution process has been designed to accomplish two goals. The first goal is to introduce the general concepts, basic propositions, and experimental factors that have received major attention in conceptual and experimental approaches to the "attribution of causality" and "assignment of responsibility." The second goal is to delimit the area of attribution research that is of major interest in the present study.

Three fundamental propositions are involved in all conceptual approaches to the attribution process. Each proposition will be discussed in turn. To illustrate these propositions, the following events will be discussed and expanded: (1) a person buys a friend a beer, (2) a person saves a boy from drowning, (3) a person fails an exam, and (4) a person kills a man.

These events differ in two important ways that are relevant to the basic propositions of the attribution process. First, the consequences or outcome of the person's actions differ in terms of positivity and negativity (e.g. "saving a boy from drowning" versus "killing a man"). Secondly, an individual may be the person who acts in each situation or may merely be a non-acting witness of another person's actions in each situation. For example, the individual himself may "buy a friend a beer" or may merely witness another person "buy a friend a beer." These differences have received major attention from researchers who have attempted to delineate the influence of outcome characteristics (e.g. degree of positivity or negativity) and the perspective or role of the individual (e.g. active participant or non-acting witness) on attributions of causality and assignment of responsibility.

The proposition most fundamental to the attribution process is that when an individual observes his own actions or the actions of other people in a particular situation, the individual is often motivated to establish sufficient reasons for the actions that were taken and the resultant outcome. Now, as the examples illustrate, an individual may be either an actor or an observer of an event. As such, the individual who is an actor may be motivated to explain his own actions and resultant outcome while the individual who is an observer may be motivated to explain

another person's actions and resultant outcome. Furthermore, the nature of the produced outcome in terms of positivity or negativity may differentially affect the types of causal attributions and the amount of responsibility assigned by actors and observers.

The second fundamental proposition is that information processing is basic to the attribution process. The individual, as an actor or observer, accumulates and evaluates available information about events in order to determine the most plausible and reasonable explanation for the observed actions and outcome. The individual is assumed to process available information about the actual sequence of events, the behavior of the people who were involved, the environmental setting, and the extenuating circumstances that facilitated or inhibited the observed actions and outcome. Based on the processing of this information, the individual arrives at a decision as to which of several alternative explanations for the actions taken and the outcome produced is the most plausible or reasonable.

This second proposition implies that an individual processes a great deal of information in making causal inferences and in assigning responsibility. However, in the examples of action sequences discussed above, the available information is quite limited. For example, notice that in those action sequences only one person acts

and the outcome is a direct result of his acts. Thus, based on the available information in each case, alternative causal explanations for the outcome are virtually non-existent.

Also notice that numerous inferences could be made about the causal antecedents of the person's actions, but virtually no information is given to support or suggest the plausibility of such inferences. For example, "Was the person who bought a friend a beer reciprocating a previous favor?" or "Was the person who saved the boy from drowning the only other person at the beach?" or "Did the person who failed the exam study?" or "Did the person who killed the man do so intentionally?" Thus, if the only information available to the attributor is a simple action sequence such as, "a person buys a friend a beer," then all evidence points to the person as the sole causal agent in producing the outcome and the person would likely be held totally responsible for the outcome.

However, an attributor usually has a great deal more information about his own actions or another person's actions and the circumstances surrounding those actions. Therefore, each situation may be expanded to include more information and the impact of this additional information may be examined relative to attributions of causality and assignment of responsibility.

Additional information about each action sequence

might be: (1) the person's friend had no money and asked the person to buy him a beer, (2) the person was the only person around who could swim and save the boy from drowning, (3) the person stayed up all night studying for the exam and was not alert when taking the exam, or (4) the person was driving and ran over a man who stepped out from behind a parked car.

In these expanded situations, more information is now available not only about the person's actions but also about environmental forces which influenced the actions taken and the outcome produced. There now exists a somewhat global dichotomy of causal agents, namely "the person" and "the environmental forces" which affect the person's actions and the outcome. The availability of this additional information implies that the attributor must deal with the nature of the interaction between the person and environmental forces in arriving at plausible explanations for the actions and the outcome, in attributing causality, and in assigning responsibility.

The resulting information processing task of the attributor might be conceptualized as follows. First, the attributor processes the available information to assess the relative contribution of the person and the environmental forces in causing the person's actions and the outcome. Second, to the extent that external environmental forces are ruled out as a potent causal agent in producing

the person's actions and/or outcome, the attributor makes causal attributions about the internal personal motives or dispositions of the person which serve to explain his actions. Finally, based on these causal attributions concerning the person's actions and the outcome, the attributor assigns relative amounts of responsibility to the causal agents. For example, an individual may assign less responsibility to a person when the outcome is attributed purely to environmental factors such as "chance" than when the outcome is attributed to internal dispositions such as the "careless" or "premeditated" actions of the person.

As might be expected, the way in which the attributor deals with the available information is affected by the perspective or role of the attributor and the nature of the outcome. Thus, the third fundamental proposition in conceptual approaches to the attribution process is that the degree to which an individual holds himself or another person responsible for the occurrence of an outcome may not be simply the result of an objective analysis of the cause-and-effect relationships in an event. Depending upon his role or perspective in an event (actor or observer) and upon outcome characteristics (positivity or negativity), the attributor likely has perceptual and/or motivational biases to locate causality and assign responsibility to different causal agents. These biases lead to modifications or distortions that would not be present if

attributions of causality were the result of a purely objective analysis of causality. These modifications or distortions of causal attributions also lead to a corresponding modification or distortion in assignment of responsibility.

For example, suppose a person is rolling a pair of dice in a gambling situation. Objectively, given the dice are fair, a winning toss or a losing toss is due purely to chance. However, an individual who throws the dice may attribute causality to himself rather than to other environmental forces (e.g. chance) and take more responsibility for a positive outcome (e.g. a winning toss) than for a negative outcome (e.g. a losing toss). On the other hand, an individual who merely witnesses this action sequence may be more objective and may tend to attribute causality to chance and assign little responsibility to the person regardless of the outcome.

In summary, the general conceptual framework in attribution research has been to postulate a process which mediates an individual's responses to a set of stimuli. The stimuli is the information that is available about the sequence of events that led to the outcome. The responses are attributions of causality and assignment of responsibility. The process basically involves the processing of available information. The processing of information leads to decisions as to the cause-and-effect relationships which

serve to adequately explain the actions that were taken and the outcome that was produced. However, the process may not simply involve an objective analysis of the cause-and-effect relationships. Depending upon his role in an event and upon outcome characteristics, an individual may have perceptual and/or motivational biases. These biases operate to modify or distort causal attributions and responsibility assignment which would result from a purely objective evaluation of the causal role shared by a person and environmental forces in producing a particular outcome.

Overview of Attribution Research

Researchers of the attribution process have attempted to delineate the influence of several factors on the attribution of causality and assignment of responsibility in "action situations." Most research has been directed toward the influence of outcome valence (positive or negative), outcome intensity (low or high), and subject role vis-a-vis the action situation (actor or observer).

A review of this research will demonstrate that studies on outcome characteristics and subject role have led to inconsistent findings and an extensive but perplexing body of literature. The overall goal of the present study is to propose and test a theoretical resolution for these inconsistent findings. Before proceeding with a review of past literature, relevant concepts must be explicitly defined to assure a clear understanding of prior research and the

various conceptual approaches to the attribution process.

In the typical attribution experiment, subjects are exposed to an "action situation." An action situation may be defined as any sequence of events that involves one or more participants whose actions result in a particular outcome. An example of an action situation might be, "Person A dives off a diving board and just as he dives off, Person B swims up from under water and Person A lands on top of Person B whose arm is broken." Differing in explicitness and depth, action situations present objective information about the behavior of the participants, the environmental setting, and the extenuating circumstances surrounding the sequence of events. Therefore, an action situation represents the stimuli, i.e. the information available to an individual on which to base attributions of causality and assignment of responsibility.

In the typical paradigm of attribution research, action situations may actually be live behavioral events or may be presented as a written description of a behavioral sequence of events. However, regardless of the presentation mode, subjects are experimentally induced to be either actors who participate in the action situation or observers who merely witness the action situation. For example, if a written description of an action situation is given, then actor-subjects may be asked to imagine or to consider themselves as participants in the situation while observer-subjects

may be asked to consider themselves as witnesses to the action situation.

Following exposure to an action situation, the actor- and observer-subjects are typically asked a variety of questions concerning the action situation. In particular, a subject may be asked to specify the degree to which a participant, either himself as an actor or another person as an observer, is responsible for the outcome. As an example, actor- and observer-subjects may be presented a written description of the following situation and asked to assign responsibility: "You (Perry) dove off a diving board and just as you (Perry) dove off, someone swam up from under water and you (Perry) landed on top of him and broke his arm. Ascribe a 'percentage at fault' to yourself (Perry) and to the other person." The example was adapted from a study that was conducted by Duval and Wicklund (1973).

To be more specific about the nature of action situations used in research, every action situation can be considered to contain three basic components: a "primary actor," an "active environment," and a "final outcome." The distinctions among the components are fundamental to the research and conceptual approaches to attribution of causality and assignment of responsibility.

The term "primary actor" refers to the central character in an action situation and the person to whom responsibility is to be assigned. Thus, the typical dependent

measure is the amount of responsibility that is assigned to the primary actor. Experimentally, an actor-subject typically serves as the primary actor in an action situation while an observer-subject typically serves as the witness of the behavior of the primary actor. Even though more than one person may participate in an action situation, only one participant is considered to be the primary actor. In the above example, "Perry" is the primary actor for an observer-subject.

The term "active environment" refers to all aspects of the action situation other than the primary actor. The active environment includes all factors or forces which influence or surround the behavior of the primary actor and/or the production of the outcome. In any particular situation, any number of factors may operate as the active environment. The active environment may include other people who may or may not actually act in producing the outcome, chance factors, facilitative forces, inhibiting forces, or extenuating circumstances. The implication is that the primary actor and the active environment may interact in any number of ways to create a sequence of events leading to an outcome. For example, the primary actor may or may not be coerced (a facilitative force) into performing a socially unacceptable act (an inhibiting force).

Finally, the third component of any action situation is the "final outcome." The final outcome may be positive

(favorable or desirable) or negative (unfavorable or undesirable) and may vary in intensity, that is, the degree of positivity or negativity (low to high). Although the final outcome may not be the only outcome produced by the interaction between the primary actor and the active environment, the final outcome is typically the outcome for which the subject is to indicate the primary actor's responsibility.

To repeat, researchers of the attribution process have sought to delineate the effect of subject role (actor or observer) and outcome characteristics (valence and intensity) on attributions of causality and assignment of responsibility. In reviewing studies which examined actor-observer differences in the attribution of causality and assignment of responsibility, studies can be grouped into two general categories. The first category includes those studies that have examined actor-observer differences without manipulating outcome characteristics. The second category includes those studies that have examined actor-observer differences as a function of outcome characteristics.

In general, the studies in the first category have yielded a fairly consistent finding. The generally consistent finding has been that actors and observers tend to make different types of attributions. Actors have been shown to usually focus on external, environmental explanations for their own actions while observers have been shown to

usually focus on the internal personal dispositions of the actor in accounting for the actor's behavior. Conceptually, what these findings suggested was that actors and observers have different but stable perceptual biases to attend to different causal agents in accounting for a person's actions. Simply by implication then, one might expect actors to place responsibility primarily on external environmental forces and observers to place responsibility primarily on the actor.

However, when turning to research on actor-observer differences where outcome characteristics were a central issue, the findings have indicated that outcome characteristics differentially influence the degree of responsibility assigned by actors and observers. Furthermore, the findings have not been consistent. For example, some research has shown actors to take more responsibility for positive outcomes than for negative outcomes while other research has shown the opposite. In addition, some research has shown observers to assign more responsibility to actors as negative outcomes became more severe while other research has shown the opposite. Conceptually, these findings led researchers to suggest that actors and observers have different motivational biases, not stable perceptual biases, to attribute causality and assign responsibility to different causal agents depending upon the nature of the final outcome.

The point is that research on actor-observer differences

has resulted not only in inconsistent findings but also in a variety of theoretical explanations to account for the findings. The studies to be reviewed in the next section have been chosen to point out these inconsistencies and to explicate the various theoretical explanations that have been generated to account for these findings. Following this review, additional research and theoretical positions will be examined to develop a possible resolution of the inconsistent findings. This additional research will also provide the empirical bases for the methodology to be used in the present study.

Literature Review

The major purpose of the following brief review is to examine the generally consistent finding that actors and observers tend to make different types of attributions. Generally, actors tend to attribute causality to external situational factors while observers tend to attribute causality to the internal personal dispositions of the actor himself.

Nisbett, Caputo, Legant, and Maracek (1973) asked subjects, as actors, to give the reasons for choosing their major field of study and for liking the girls that were dated most frequently. Similarly, the same subjects, as observers, were asked to give the reasons that their best friends had for choosing a major and for liking the girls that were dated. Reasons were categorized as "stimulus attributions" (e.g. "Chemistry is a high paying field" or "She's a very warm

person") or as "person attributions" (e.g. "I want to make a lot of money" or "I like warm girls"). The findings showed that the subjects, as actors, gave primarily "stimulus attributions" or external reasons when answering for themselves. On the other hand, the subjects, as observers, gave primarily "person attributions" or internal dispositional reasons when answering for their best friends.

Jones, Rock, Shaver, Goethals, and Ward (1968) showed that subjects who observed the performance of accomplices (actors) on a rigged "IQ test" attributed performance mainly to the ability of actors, an internal dispositional explanation. In contrast, subjects who were actors attributed their own performance on the "IQ test" mainly to the level of item difficulty, an external environmental explanation.

Other research has also indicated that actors tend to attribute their own behavior to situational determinants while observers tend to attribute the behavior of actors primarily to the personal dispositions of the actors (McArthur, 1970; 1972). A theoretical account of this general finding was formulated by Jones and Nisbett (1971). The formulation was called the "discrepancy hypothesis" and stressed the perceptual biases of actors and observers.

The basic premise of the "discrepancy hypothesis" is that individuals have a rather stable tendency to focus on the most salient features of an action sequence when making

attributions. However, the features of the action situation that are most salient for an actor and an observer are different. The most salient feature for an observer is the behavior of the actor himself (e.g. what he is doing, what he is saying, and what actions he is specifically taking). The most salient features for an actor are situational factors, be they other participants and/or extenuating circumstances surrounding the event (i.e. the active environment).

Thus, the discrepancy hypothesis argues that actors have a pervasive and stable tendency to focus their attention on situational cues and as such to direct attributions of causality toward the environmental circumstances and away from themselves. In contrast, observers have a pervasive and stable tendency to focus their attention on the behavior of the actor and as such to make attributions about the internal dispositions, motivations, and personal characteristics of the actor.

The discrepancy hypothesis as formulated by Jones and Nisbett (1971) does not clearly and specifically deal with actor-observer differences in assignment of responsibility as a function of outcome characteristics. However, by combining a fundamental proposition of the attribution process and the discrepancy hypothesis, a reasonable suggestion could be derived as to actor-observer differences in responsibility assignment.

The relevant proposition states that assignment of responsibility depends upon one's attributions of causality. It would follow that if one attributes causality primarily to external environmental forces, then one should assign responsibility primarily to these external forces rather than to the actor himself, and vice versa. In addition, the discrepancy hypothesis stipulates that actors have a stable tendency to attribute causality primarily to external situational determinants while observers have a stable tendency to attribute causality primarily to the actor. Therefore, a reasonable suggestion is that actors should demonstrate a rather stable tendency to assign responsibility primarily to external forces, not to himself, while observers should demonstrate a rather stable tendency to assign responsibility primarily to the actor, not to external environmental forces.

However, research which is reviewed below has indicated that the discrepancy between actors and observers is not stable, but varies depending upon the nature of the final outcome. For example, research has suggested that for negative outcomes, observers tend to hold actors more responsible as negative outcomes become more severe while actors tend to hold themselves less responsible as negative outcomes become more severe. As for positive outcomes, research has suggested that the tendencies are reversed.

Based on these findings and others, researchers have attempted to explain the influence that outcome characteristics have on actors' and observers' attributions of causality and assignment of responsibility. Generally speaking, researchers have postulated that actors and observers have a motivational bias to operate in terms of their own self-interests. The underlying notion is that actors and observers attend to, attribute, and assign responsibility to those causal forces which are in accordance with a motivational bias to enhance one's own self-perception or self-concept.

A thorough discussion of the theoretical explanations which deal with outcome characteristics will be given after reviewing five studies that have provided empirical support for the notion that actors and observers operate in terms of their own self-interests. The attribution role of subjects differed from study to study. In two of the studies, the subjects were only observers (Walster, 1966; Shaw and Skolnick, 1971) while in two other studies, the subjects were only actors (Johnson, Feigenbaum, & Weiby, 1969; Harris and Harvey, 1975). Only one study (Harvey, Harris, & Barnes, 1975) dealt with both roles.

The first major study that dealt with outcome valence and intensity was conducted by Walster (1966). The amount of responsibility that observers assigned to a "responsible person" (Lennie) for an automobile accident was examined.

Essentially, the accident involved Lennie parking his car at the top of a hill and setting the handbrake, but while he was gone, the car rolled down the hill. Later, police found that the brake cables were rusted and had broken. The outcome of the accident was either mild or severe. Mild outcomes involved either a tiny dent in the bumper or a tiny dent in the bumper, but other people could have been hurt. Severe outcomes involved either a demolished car or other people who were actually hurt. Overall, the results showed that observers assigned more responsibility to Lennie when the outcomes were severe than when the outcomes were mild.

While Walster was concerned only with the effect of severity of negative outcomes, Shaw and Skolnick (1971) studied the effect of outcome intensity for both positive and negative outcomes. Observers were given a description of a Chemistry student (Jim) who wanted to complete a lab assignment so that he could leave early for Christmas vacation. The outcome of "Jim mixing two chemicals while trying to follow the lab instructions" was either an offensive odor (mild-negative), an explosion (severe-negative), a pleasant odor (mild-positive), or a major discovery (severe-positive). Results showed that outcome intensity had a different effect for positive and negative outcomes. For positive outcomes evidence indicated that observers assigned less responsibility to the actor as positive outcomes became more favorable. In contrast, for negative

outcomes evidence indicated that observers assigned more responsibility to the actor as negative outcomes became more severe.

Researchers have also examined the effects of outcome characteristics on the degree to which actors hold themselves responsible for the consequences of their own actions. Johnson, et. al. (1969) examined the effect of outcome valence. Actor-subjects taught arithmetic to two students who were fictitiously located in an adjacent room. The actor-subjects taught the students via a one-way speaker system. One student continued to improve (a positive outcome) and the second student continued to do poorly (a negative outcome). The actors tended to take personal credit for the student who continued to improve and tended to blame the student who continued to do poorly.

Harris and Harvey (1975) examined the effect of outcome valence on the degree to which actors held themselves responsible for an outcome. Actors were asked to select one of two learning tasks that would be performed later by another subject, the "learner." After each actor selected a task, an experimenter told each actor that the selected task would either be pleasant or unpleasant for the learner. To measure assignment of responsibility, each actor was asked to indicate how much choice he had in selecting the task which the learner would perform. The findings showed that perceived choice was higher when the task was to be

pleasant (a positive outcome) than when the task was to be unpleasant (a negative outcome).

Harvey, et. al. (1975) compared actors' and observers' assignment of responsibility as a function of the severity of negative outcomes. Actor-subjects were asked to present a learning task to a pupil (actually a confederate) and to administer a shock for each incorrect response made by the pupil. The pupil's distress reaction to the shocks was either moderate or severe. Observer-subjects merely watched the proceedings. All subjects, actors and observers, were asked to specify the degree to which the actor, the pupil, and the experimenter were responsible for the pupil's distress. The findings revealed that (1) observers held the actors more responsible for the negative outcomes than actors held themselves, (2) observers held the actors more responsible as negative outcomes became more severe, but (3) actors held themselves less responsible as negative outcomes became more severe.

The "theory of defensive attribution" was formulated to account for the effects of outcome valence and intensity on attributions of causality and assignment of responsibility. The theory was initially formulated to deal only with observers' attributions of causality and assignment of responsibility (Walster, 1966; Shaw and Skolnick, 1971). Other authors later extended the basic concepts of the theory

to account for actors' attributions of causality and assignment of responsibility (Johnson, et. al., 1969; Harris and Harvey, 1975; Harvey, et. al., 1975).

The underlying proposition of the theory is that an observer operates as if he might be involved in an action situation similar to the one he just witnessed and if so, he could be a potential cause of a similar outcome. If he considers himself to be a potential cause of the final outcome in a similar set of circumstances, then the observer will attribute causality and assign responsibility in accordance with his own self-interests.

The observer operates in accordance with his own self-interests in two related ways. First, the theory argues that as positive and negative outcomes become more extreme, the observer scrutinizes more closely the sequence of behavioral events in an attempt to establish the predictability of the outcome. Believing that the cause-and-effect relationships were predictable, the observer convinces himself that he would have caused the positive outcome or would have avoided the negative outcome in a similar set of circumstances.

Second, the theory argues that as positive and negative outcomes become more extreme, the observer is motivated to make different types of inferences about the causal role of the actor. As negative outcomes become more severe, the observer is increasingly motivated to infer that the negative

outcomes could have been caused only by that specific actor. As such, the observer identifies or associates the actor as the unique singular cause of the undesirable negative outcomes. In contrast, as positive outcomes become more favorable, the observer is increasingly motivated to avoid the inference that the positive outcomes could have been caused only by that specific actor. As such, the observer dissociates the actor as the unique singular cause of the desirable positive outcomes.

Through these two related processes, the observer operates in accordance with his own self-interests. By convincing himself that he would have avoided the negative outcomes and by associating the actor as the unique cause of those negative outcomes, the observer defends or increases the possibility that only the actor could have caused the undesirable outcomes. On the other hand, by convincing himself that he also would have caused the positive outcomes and by dissociating the actor as the unique cause of those positive outcomes, the observer defends against or decreases the possibility that only the actor could have caused the beneficial outcomes.

Based on this argument as formulated by Walster (1966) and Shaw and Skolnick (1971), the theory makes different predictions about observers' attributions of causality and assignment of responsibility for positive and negative outcomes. As positive outcomes become more favorable, the

observer's bias is to convince himself that he also would have caused the positive outcome and to dissociate the actor as the unique cause of that outcome. The end-product is that as positive outcomes become more favorable, the observer allocates less causality and less responsibility to the actor. As negative outcomes become more severe, the observer's bias is to convince himself that he would have avoided the negative outcome and to associate the actor as the unique cause of that outcome. The end-product is that as negative outcomes become more severe, the observer allocates more causality and more responsibility to the actor.

However, for sake of completeness and as a viable alternative to the above argument, Walster (1967) proposed a somewhat different and more parsimonious argument to defensive attribution. Walster's argument (1967) did not lead to predictions of opposite attributional tendencies for positive and negative outcomes. Her argument dealt with the first process, as previously discussed, by which observers operate in accordance with their own self-interests. Walster argued for a direct relationship between outcome intensity and responsibility assignment.

Simply put, Walster proposed that as positive or negative outcomes become more extreme, observers tend to convince themselves that they would have predicted the outcome. Having established the predictability of the outcome,

observers hold actors responsible for positive outcomes they would have caused and hold actors responsible for negative outcomes they would have avoided. The end-product is that as positive and negative outcomes become more extreme, observers will hold actors more responsible for the final outcome.

The previous discussion of defensive attribution dealt only with observers' attributions of causality and assignment of responsibility. However, extension of the basic concepts to actors' attributions of causality and assignment of responsibility for their own actions and/or produced outcome is fairly direct. To maintain self-esteem or to make attributions that are in accordance with one's own self-interests, actors have a motivational bias to dissociate themselves from the production of a negative outcome and as such, to attribute less causality and to assign less responsibility to themselves as negative outcomes become more severe. Similarly, as positive outcomes become more favorable, actors have a motivational bias to associate themselves with the production of a positive outcome and as such, to attribute more causality and to assign more responsibility to themselves.

The general conclusion to be drawn from the previous discussions of defensive attribution and the discrepancy hypothesis is as follows. As stipulated by the discrepancy hypothesis, actors may have a rather stable tendency to focus

on situational determinants of his own behavior and/or outcome while observers may have a rather stable tendency to focus on internal dispositional determinants of the actor's behavior. However, the differential tendencies of actors and observers may be superseded by motivational biases to attribute causality and assign responsibility in accordance with one's own self-interests as a function of the positivity or negativity of the final outcome.

As indicated earlier, several studies have yielded findings that have failed to support the general propositions derived from defensive attribution. Four studies will be reviewed that have contradicted the defensive attribution approach to responsibility assignment. Following this review, a possible resolution of the problems will be developed.

Shaver (1970) conducted a study similar to Walster (1966) in which the effect of severity of negative outcomes on observers' assignment of responsibility to actors was examined. Observer-subjects were given the description of the automobile accident involving Lennie. The outcome was either mild or severe. The mild outcome involved a tiny dent in the bumper, but other people could have been hurt. The severe outcome involved other people who were actually hurt. Unlike the study by Walster (1966), the accident account was presented as a courtroom case which was to be used in a later study on jury functioning.

Walster (1966) presented the accident account as stimulus materials which were to be used in a later study on soldiers' ability to accurately recall events. Contrary to predictions from defensive attribution, Shaver found that severity of negative outcomes did not have a significant effect on observers' assignment of responsibility.

Walster (1967) conducted two experiments to assess observers' assignment of responsibility as a function of the intensity of positive and negative outcomes. Recall that Walster's formulation of defensive attribution predicted that as positive and negative outcomes become more extreme, observers should assign more responsibility to the actor.

For both experiments, observer-subjects were given a description of an actor who decided to buy a house, but had gained or lost different amounts of money due to environmental circumstances. The first experiment involved "Mrs. Wallace who had decided to buy a house after much deliberation of the possible risks and advantages. The environmental circumstances that led to a gain was a landslide that deposited a valuable mineral on the property. The circumstances that led to a loss was a landslide that destroyed the property. The second experiment involved "Alex Kendler" who had decided to buy a house and knew that the value of the house would rise or fall depending upon government renewal of research contracts in the area.

The findings of both experiments were similar. Observers

tended to hold the actors less responsible as both positive and negative outcomes became more extreme. Thus, with respect to severity of negative outcomes, the findings were opposite to predictions based on defensive attribution. With respect to the favorability of positive outcomes, the findings were opposite to predictions of defensive attribution as formulated by Walster (1967). However, the findings related to positive outcomes did conform to predictions of defensive attribution as formulated by Walster (1966) and Shaw and Skolnick (1971).

Research on actors' assignment of responsibility have also yielded findings inconsistent with predictions based on defensive attribution and the corresponding concept of self-interest. Ross, Bierbrauer, and Polly (1974) conducted a study similar to that by Johnson, et. al. (1969) in examining the effect of positive and negative outcomes on actors' assignment of responsibility to themselves. In addition, Ross, et. al. compared the assignment of responsibility by actors and observers. Actor-subjects, professional and non-professional instructors, taught spelling to a boy who was fictitiously located behind a one-way mirror. Observer-subjects were paired with non-professional instructors only.

The findings revealed that observers saw the non-professional instructors as a more important determinant of student failure than of student success. Non-professional

instructors saw themselves as a less important determinant for student failure than for student success. Even though these findings supported predictions based on defensive attribution, other findings were not in line with defensive attribution. First, professional instructors saw themselves as a more important determinant for student failure than for student success. Second, when students failed, both groups of instructors did not actually blame the students and when students succeeded, both groups of instructors did not actually take credit.

Finally, Wortman (1975) conducted a study which indicated that actors hold themselves more responsible for negative outcomes than for positive outcomes under certain conditions. Actor-subjects were given a chance to receive either an attractive item (positive outcome) or an unattractive item (negative outcome) by a chance drawing of a blue or red marble. Some subjects were told beforehand which marble corresponded to the attractive and unattractive item while other subjects had no such foreknowledge. The findings indicated that actors who had foreknowledge held themselves more responsible when the outcome was negative than when the outcome was positive. Actors who did not have foreknowledge tended to hold themselves more responsible for positive outcomes than for negative outcomes. Wortman suggested that the degree to which a person holds himself responsible depends upon

having foreknowledge about the possible consequences of his behavior.

Development of Resolution

As the previous review indicates, past research that has dealt specifically with actors' and observers' assignment of responsibility as a function of outcome characteristics has yielded inconsistent findings. For example, some research found observers assigned more responsibility to actors as negative outcomes became more severe (e.g. Walster, 1966) while other research found the opposite (e.g. Walster, 1967) and still other research found no substantial effect due to the severity of negative outcomes (e.g. Shaver, 1970). Furthermore, some research found actors took more responsibility for positive outcomes than for negative outcomes (e.g. Johnson, et. al., 1969) while other research found the opposite (e.g. Ross, et. al., 1974). Therefore, neither the discrepancy hypothesis nor defensive attribution have been consistently supported in accounting for actor-observer differences in responsibility assignment.

Moreover, a major gap existed in the literature concerning actor-observer differences as a function of outcome characteristics. Past research has not examined actor-observer differences in responsibility assignment as a function of outcome characteristics in the same experimental situation. Hence, an overall objective of the present study is to fill this void in existing literature. But more

importantly, this study will also propose and test a possible resolution of the inconsistent findings, a subject to which we now turn.

An explanation of the confusion and inconsistencies in attribution research may be possible if consideration is given to some of the major propositions issued in conceptual approaches to the attribution process. To begin the development of a possible resolution of the problems in past research, recall the general conceptual framework of attribution research. The overall approach has been to postulate a process which mediates an attributor's responses to a set of stimuli. The responses are the attributions of causality and assignment of responsibility by actors and observers. The stimuli are the action situations, i.e. the available information about the interaction between the "primary actor" and the "active environment" in producing the "final outcome."

The mediating process does differ depending upon the specific approaches offered by the discrepancy hypothesis and by defensive attribution. However, both approaches rest upon the same fundamental proposition of the attribution process. Both theories assume that actors and observers base their attributions of causality and assignment of responsibility on the processing of available information about the interaction between the primary actor and the active environment in producing the final outcome.

Empirically though, researchers have focused their attention only on the effects of outcome characteristics on the responses of actors and observers, i.e. only the dimensions of one component of action situations have received major attention, namely the valence and intensity of the final outcome.

Thus, little empirical attention has been given to identifiable dimensions of the remaining two components of action situations, namely the primary actor and the active environment. But both theoretical approaches have suggested that different dimensions of these components are important determinants of causal attributions and responsibility assignment. As will be proposed and illustrated shortly, studies have inadvertently varied these stimulus dimensions and as such have produced inconsistent findings.

The discrepancy hypothesis and defensive attribution have each suggested a different stimulus dimension to be an important determinant of actors' and observers' responses. The discrepancy hypothesis suggests that the most important dimension of action situations in determining causal attributions and responsibility assignment is the "salience of information." The theory argues that an actor and an observer tend to direct attributions of causality and assign responsibility to the most salient components of an action situation. Thus, the most important stimulus dimension in

determining the attributor's responses is the perceptual salience of the primary actor or the active environment in producing the final outcome. The theory suggests then that if the behavior of the primary actor is perceptually most salient to the attributor, then the attributor will tend to direct causal attributions and assign responsibility to the primary actor. On the other hand, if the active environment is perceptually most salient, then the attributor will direct causal attributions and assign responsibility to the active environment.

In contrast to the discrepancy hypothesis, the defensive attribution approach suggests that the most important dimension of action situations in determining causal attributions and responsibility assignment, other than the nature of the final outcome, is the "nature of the interaction between the primary actor and the active environment." This latter stimulus dimension refers to the nature of the roles of the respective components, that is, the primary actor and aspects of the active environment in a particular situation. This dimension relates to questions such as, "Does the primary actor intentionally produce the final outcome?" and "Does the active environment facilitate or inhibit the actor's behavior?"

The theory of defensive attribution suggests that the operation of self-interest rests upon the possibility that the causal role shared by the primary actor and the active

environment is at least subject to differential interpretations on the part of actors versus observers. For example, a basic postulate of defensive attribution is that an observer attempts to establish the predictability of the final outcome so as to convince himself that he would have had control in producing the positive outcome or in avoiding the negative outcome in a set of circumstances similar to that witnessed.

However, if all evidence or information about the situation dictates that the primary actor had absolutely no control over the active environment in producing the final outcome, then the observer, and the actor for that matter, would have difficulty in interpreting the sequence of events so as to discount the active environment as causing or as being responsible for the production of the final outcome.

On the other hand, if all information points to the primary actor as having had total and complete control over the production of the final outcome, then both the observer and the actor would have difficulty in interpreting the sequence of events so as to credit the active environment with the production of the final outcome.

However, if the information or evidence is rather ambiguous or equivocal in dictating the relative contribution of the primary actor and the active environment in producing the final outcome, then the observer and the actor are more able to interpret the sequence of events so as to attribute causality and assign responsibility in accordance with their own self-interests.

To reiterate, the suggestion being made is that for all practical purposes, researchers have empirically stressed only the dimensions of the final outcome and have theoretically stressed only the process which is assumed to mediate an attributor's assignment of responsibility for a low to high positive or negative outcome. It appears that these researchers were stressing the study of only those factors (i.e. outcome characteristics) which were of primary concern in their predictions regarding actor-observer differences in responsibility assignment. Empirically though, researchers have essentially ignored the two dimensions of action situations that are suggested to be of major importance in determining assignment of responsibility. These two dimensions are the perceptual salience of the role of the primary actor and the active environment in producing the final outcome and the nature of the interaction among these causal agents.

As a result, prior studies have systematically varied the role of subjects and the characteristics of the final outcome, but have seemed to inadvertently and unsystematically vary the nature of the action situations in terms of the salience of and the nature of the interaction between the primary actor and the active environment. Possibly, by failing to systematically take into account these two important stimulus dimensions, past research has resulted in inconsistent and confusing findings.

However, these inconsistencies might be resolved by a close examination of the experimental situations relative

to the "salience of information about the primary actor and the active environment" and the "nature of the interaction between the primary actor and the active environment." To illustrate the viability of the above argument in resolving the problems of past research on actor-observer differences in responsibility assignment, two pairs of studies that were previously reviewed can be compared: (1) Walster (1966) and Walster (1967) and (2) Johnson, et. al. (1969) and Ross, et. al. (1974). The comparison between Walster (1966) and Walster (1967) deals primarily with the nature of the interaction between the primary actor and the active environment. Walster's studies examined observers' assignment of responsibility to actors. On the other hand, the comparison between Johnson, et. al. (1969) and Ross, et. al. (1974) deals primarily with the salience of information about the primary actor and the active environment. These two studies examined actors' assignment of responsibility to themselves.

Walster (1966; 1967) examined observers' responsibility assignment to actors as a function of the severity of negative outcomes. Walster (1966) found that observers assigned more responsibility to the actor (Lennie) as the negative outcome (automobile accident) became more severe. Results supported the defensive attribution prediction that as negative outcomes become more severe, observers will hold actors more responsible. Then in 1967, A similar study by Walster produced opposite results. Walster (1967) found that observers assigned less responsibility to the actor (e.g. Mrs. Wallace) as the negative outcome (e.g. amount of money lost due to a landslide) became

more severe. Walster (1967) did not offer an explanation for these findings.

The action situations in the two studies differed not only in terms of the nature of the actor's role in producing the outcome but also in terms of the information that was emphasized or made salient to the observers. Paraphrasing, Walster (1966) described Lennie as having just bought a 6 year old car with rusted brake cables and as having set the handbrake after parking at the top of the hill. In contrast, Walster (1967) described Mrs. Wallace as having quite a bit of prior information on which to base a decision for buying the house. Mrs. Wallace was described as having deliberated extensively the risks and advantages involved in buying the house, but as having no control over the environmental factors (landslide) which would determine the amount of money lost. Furthermore, she knew that the likelihood of a landslide resulting in a severe loss was quite low as indicated in the following statement: "each year one family of the 400 in the hills had a home severely damaged by mud from a landslide, while two or three out of the 400 uncovered zealrite and made a fortune."

A reasonable explanation for the inconsistent findings may be as follows. In her 1967 study, Walster stressed the actor's extensive deliberation in the decision to buy the house and the role of "chance" in producing the outcome. The observers simply made attributions and assigned responsibility consistent with the causal factors that were emphasized. By knowing of Mrs. Wallace's extensive deliberation in the decision to buy the house, the observers held her responsible rather than not

responsible regardless of the severity of the negative outcome. Also, by knowing that the likelihood of a severe loss was less than the likelihood of a small loss, the observers tended to attribute causality more to chance as the negative outcome became more severe.

However, in Walster (1966) neither the actor's behavior nor the role of chance was emphasized. Thus, a reasonable suggestion is that the observers were more able to interpret the situation as one in which the actor had a more influential role in producing the outcome than chance factors and as such, observers held Lennie more responsible as the negative outcome became more severe. The implication is that the two action situations are actually different in the nature of the causal role shared by the actor and the active environment in producing the final outcome.

Further support for the importance of differentiating between the two stimulus dimensions in accounting for inconsistent findings can be based on a comparison between the studies by Johnson, et. al. (1969) and Ross, et. al. (1974). Both studies examined actors' responsibility assignment for the success or failure of students whom the actors taught. Johnson, et. al. found actors took credit for student success and blamed the student for failure. Ross, et. al. found actors did not actually take credit for student success nor did actors actually blame the student for failure. However, Johnson's actors taught students

via a one-way speaker system while Ross's actors taught students via a one-way mirror. Ross, et. al. pointed out that the actors actually saw their own behavior as reflected by the mirror and the actors knew they were being evaluated. Ross, et. al. suggested that the visual perspective provided by the mirror and the evaluation aspect likely influenced the salience of actors' behavior and in turn, actors' attributions of causality and assignment of responsibility.

In summary, the key to resolving the inconsistencies in research may be the recognition that causal attributions and responsibility assignment are a function not only of the attributor's role and the nature of the final outcome but also two dimensions of action situations. Again, these dimensions are (1) the objective information about the nature of the interaction between the primary actor and the active environment and (2) the objective information which is most salient. These two dimensions of action situations have been empirically and theoretically addressed in the research which is discussed below. Each of these dimensions is discussed at length, especially in terms of their relevance to the present study. The dimension relating to the salience of information is discussed first.

Research has demonstrated that the salience of information influences perceptions of causality and assignment of responsibility for both actors and observers. Storms (1973)

examined the effect of manipulating the visual perspectives of actors and observers on attributions of causality. Altering the visual perspective of a perceiver is functionally equivalent to manipulating the salience of information to which an individual is exposed. The brief, unstructured "get acquainted" conversations between actor-subjects within a pair were video taped. Each conversation was witnessed by a pair of observer-subjects. Each observer-subject was matched with one actor and was asked to watch the behavior of that actor. After the conversation ended, the subjects (actors and observers) either did or did not see a video tape replay of the conversation.

The orientation of the replays were manipulated. For some subjects, the replay repeated the original orientation of the subject, that is, actors viewed the behavior of the other actor and observers viewed the behavior of the matched actor. For other subjects, the replay reversed the original orientation, that is, actors viewed his own behavior and observers viewed the behavior of the unmatched actor.

Following the replay, each subject was asked to rate the relative importance of "personal characteristics" and "situational characteristics" in causing his own behavior, as an actor, or in causing the behavior of the matched actor, as an observer. The findings showed that (1) when subjects saw no replay or a replay that repeated the

original orientation, actors rated "situational characteristics" as more important than "personal characteristics" in causing their own behavior while observers rated "personal characteristics" as more important in causing the behavior of the matched actor and (2) when subjects saw a replay that reversed the original orientation, actors rated "personal characteristics" as more important in causing their own behavior and observers rated "situational characteristics" as more important in causing the behavior of the matched actor.

Another study which manipulated the salience of actors' behavior was conducted by Duval and Wicklund (1973). These authors examined the effect of manipulating actors' visual perspectives on the degree to which actors held themselves responsible for positive and negative outcomes. The study by Duval and Wicklund is particularly important relative to the methodology to be employed in the present study.

Actor-subjects were asked to imagine themselves in a variety of situations that resulted in either positive or negative outcomes. The situations were presented in a questionnaire. For example, "Imagine that you have selected and purchased a race horse. You enter the horse in a major race and hire a good jockey to ride him. The horse wins first place. To what degree did your actions cause the victory and to what degree did the actions of the jockey cause the victory?"

A mirror was placed in the experimental room and was turned such that the mirror either did or did not face the actor-subject. The findings revealed that (1) overall, actors held themselves about equally responsible for positive and negative outcomes and (2) actors ascribed a larger degree of responsibility to themselves when the mirror was turned toward them than when the mirror was turned away from them.

The above findings led to an extension of the discrepancy hypothesis called the "theory of objective self-awareness" (Wicklund and Duval, 1971; Duval and Wicklund, 1973). The discrepancy hypothesis proposed that actors tend to focus on external situational determinants in accounting for their own actions and the occurrence of an outcome while observers tend to focus on the actor's behavior. The reason given was that environmental factors are perceptually most salient for actors while the actor himself and his behavior are perceptually most salient for observers. As a result, actors and observers are processing different information and consequently have divergent perceptions of causality.

Based on the above reasoning, Duval and Wicklund proposed that the discrepancy between actors' and observers' attributions of causality can be effectively reduced by directing an actor's focus of attention to himself and his behavior. By directing an actor's attention to himself,

his own behavior will be perceptually more salient than external situational determinants and as such, the actor and the observer will be more similar relative to the information which they attend to and process. Thus, if an actor is induced to attend to his own behavior, then the discrepancy between actors' and observers' attributions of causality should be reduced since similar types of information will be most salient for both actors and observers.

A consequence of the argument based on the discrepancy hypothesis and the theory of objective self-awareness relates to ranking three groups of subjects relative to the degree to which attributions of causality are directed toward the actor. The three relevant groups are observers, actors whose focus of attention is redirected, and actors whose focus of attention is not redirected. The general expectation is that actors whose focus of attention is not redirected should attribute less causality to themselves than actors whose focus of attention is redirected who in turn should attribute less causality to themselves than observers should attribute to actors.

The empirical findings and theoretical position of Duval and Wicklund indicate that directing an actor's focus of attention upon himself not only affects his attributions of causality but similarly affects his responsibility assignment. That is, an actor whose focus of

attention is redirected not only attributes more causality to himself than an actor whose focus of attention is not redirected but also takes more responsibility for positive and negative outcomes.

However, in extending the position of Duval and Wicklund to compare the three groups of subjects in terms of responsibility assignment, defensive attribution dictates that the discrepancy between actors' and observers' responsibility assignment must be examined as a function of outcome characteristics. Based on defensive attribution (Walster, 1966; Shaw and Skolnick, 1971), as negative outcomes become more severe, actors tend to take less responsibility while observers tend to assign more responsibility. Thus, as negative outcomes become more severe, the discrepancy between actors' and observers' responsibility assignment is expected to increase.

Based on the theory of objective self-awareness, actors whose focus of attention is redirected should take more responsibility for negative outcomes than actors whose focus of attention is not redirected. Thus, the discrepancy between actors' and observers' responsibility assignment would be expected to be reduced by redirecting an actor's focus of attention. Comparing the three groups of subjects in terms of responsibility assignment for negative outcomes, it is expected that actors whose focus of attention is not redirected should take less responsibility than actors

whose focus of attention is redirected who in turn should take less responsibility than observers should assign to actors.

But in the case of positive outcomes, the expectation derived from defensive attribution and the theory of objective self-awareness would be the reverse of that for negative outcomes. Based on defensive attribution, as positive outcomes become more favorable, actors tend to take more responsibility while observers tend to assign less responsibility. Thus, the discrepancy between actors' and observers' responsibility assignment is expected to increase as positive outcomes become more favorable.

However, based on the theory of objective self-awareness, actors whose focus of attention is redirected should take more responsibility for positive outcomes than actors whose focus of attention is not redirected. Thus, unlike for negative outcomes, the discrepancy between actors' and observers' responsibility assignment would be expected to increase by redirecting an actor's focus of attention. Therefore, relative to the rank order of the three groups of subjects in responsibility assignment for positive outcomes, it is expected that actors whose focus of attention is redirected should take more responsibility than actors whose focus of attention is not redirected who in turn should take more responsibility than observers should assign to actors.

As suggested previously, past research has inadvertently varied two important stimulus dimensions. Researchers have varied not only the information that was most salient to actors and observers, as just discussed, but also the objective information about the nature of the interaction between the primary actor and the active environment. This latter dimension is discussed at length below. The research and theoretical positions related to this dimension have major implications for the present investigation.

Fishbein and Ajzen (1973) have also noted the importance of this latter stimulus dimension, namely the nature of the interaction among the causal agents in an action situation. They discussed various types of interactions between the primary actor and the active environment. They distinguished between five different levels of causality that were developed by Heider (1958): "association," "commission," "foreseeability," "justification," and "intentionality."

Each level not only represents a distinct causal interaction between the primary actor and the active environment as objectively depicted in different types of action situations but also represents a different degree to which the primary actor and the active environment share a causal role in producing the final outcome. At each successive level, the primary actor is considered to have a more

influential role in producing the final outcome than the active environment. Correspondingly, the degree to which the primary actor is held responsible by observers for positive and negative outcomes is a function of the level of causality. As such, Fishbein and Ajzen argued that the discrepant findings from past research on responsibility assignment were due to subjects evaluating the actor's role in producing the final outcome at different levels of causality as objectively depicted in action situations.

Shaw and his associates also conducted research that provided additional elucidation and empirical support for Heider's levels of causality (Shaw and Reitan, 1969; Shaw and Sulzer, 1964; Sulzer, 1964). The examples used to discuss and illustrate each level were adapted from questionnaires that were developed by these researchers. For each situation, "Perry" is designated as the "primary actor" and the outcome could be positive or negative and vary in intensity. In their research, observer-subjects are asked to specify the degree to which "Perry" is responsible for the outcome.

"Association" is the level at which the stimulus person is depicted as being only indirectly related to the production of the final outcome. The stimulus person does not actually act in producing the outcome. The stimulus person is merely related to the produced outcome by virtue of ownership of the instrument used or by virtue of a personal

unit relationship with the people who do actually act in producing the outcome. For example, "One day several of Perry's friends were fishing at the lake. They found a fishing rod in the bushes and broke it. Is Perry responsible for the fishing rod being broken?" The final outcome (fishing rod being broken) is negative. The level of causality is association because even though Perry did not act or participate in breaking the fishing rod, Perry was related to the produced outcome by virtue of friendship with the people who did produce the final outcome.

"Commission" is the level at which the stimulus person does act in the situation, but (1) he acts to produce an outcome that is different from the outcome that actually results and (2) the final outcome that does result could not have possibly been anticipated or foreseen by the stimulus person. The outcome is not part of the stimulus person's intentions or goals, but his actions merely set in motion a sequence of events that lead to an unforeseeable outcome beyond his control. For example, "Perry was making some business telephone calls. When the phone rang in one home he called, it awakened a man who was sleeping near a broken gas heater. If he had not awakened, the leaking gas would have killed him. Is Perry responsible for the man waking up in time to escape death?" The final outcome (man escaping death) is positive. The level of causality is commission because Perry's actions set in

motion an unforeseeable and uncontrollable sequence of events that did result in an outcome that was not part of Perry's intentions.

"Foreseeability" is the level at which the stimulus person does act in the situation, but (1) he acts to produce an outcome that is different from the outcome that actually results and (2) the final outcome that does result could have been anticipated or predicted by the stimulus person. The final outcome is not part of the stimulus person's intentions or goals, but the consequences of his action could have been anticipated, predicted, or controlled by the stimulus person if he had taken into account or had given enough thought to the circumstances surrounding his actions. For example, "Perry was taking his little sister to school. She started to step into a busy street but Perry wanted to look in a store window, so he pulled her back. This kept his sister from being hit by a speeding car. Is Perry responsible for saving his sister's life?" The final outcome (saving sister's life) is positive. The level of causality is foreseeability because Perry's intention was not to save his sister's life and the consequences of his actions could have been anticipated.

"Justification" is the level at which the stimulus person does act in the situation, but unlike the foreseeability level, he does foresee the consequences of his actions. However, his actions are warranted by the

circumstances and/or sanctioned by societal norms. The final outcome is a direct result of his actions, but circumstances or environmental forces, such as coercive forces, facilitate the behavior of the stimulus person. The stimulus person behaves and acts as most other people would have acted in the same set of circumstances. For example, "A man tried to kill Perry with a large knife. Perry grabbed the knife and stabbed the man to keep from being killed himself. Is Perry responsible for the man being stabbed?" The final outcome (man being stabbed) is negative. The level of causality is justification because Perry was coerced into stabbing the man. Under conditions of self-defense, Perry's actions were warranted by the set of circumstances and most other people would defend themselves.

"Intentionality" is the level at which the stimulus person acts to produce the outcome, but unlike the justification level, his actions are not warranted by the circumstances and/or not sanctioned by societal norms. The stimulus person does not act and behave as most other people would have acted in the same set of circumstances. The final outcome is a direct result of his actions and the person acts in spite of circumstances or environmental forces which inhibit his actions. For example, "Perry was fishing when he saw a boy drowning in the river. Perry could not swim, but he fought his way out to the boy and

pulled him out. Is Perry responsible for saving the boy's life?" The final outcome (saving boy's life) is positive. The level of causality is intentionality because Perry deliberately saved the boy's life in spite of the fact that he could not swim.

In summary, at each level of causality, the nature of the interaction between the primary actor and the active environment is quite different. At the level of association, the stimulus person is only indirectly related to the production of the outcome which is caused exclusively by the active environment. The person's role is minimal, i.e. he is simply associated with causal forces in the active environment. At the level of commission, the stimulus person is more involved by virtue of the fact that he does act, but his actions merely set in motion a sequence of events beyond his control. At the level of foreseeability, the stimulus person's actions set in motion a sequence of events that is not beyond his control, but could have been controlled if he had taken into account environmental contingencies. At the level of justification, the outcome is a direct result of the person's actions, but the person is coerced into performing an act by virtue of facilitating extenuating circumstances that warrant his behavior. At the level of intentionality, the stimulus person deliberately acts to produce the outcome even though there are environmental forces and contingencies acting to inhibit his

behavior.

Theoretically, a subjects's interpretation of causality and assignment of responsibility depends upon the level of causality as objectively depicted in an action situation. The information presented in a situation defines the five "contextual levels of causality" and allows the subject to answer questions, such as (1) "Was the person only indirectly related to the production of the outcome by virtue of his association with other causal agents?" (association level), (2) "Did the person's actions merely set in motion the active environment which yielded an uncontrollable and unforeseeable outcome?" (commission level), (3) "Was the individual careless by not taking into account information supplied by the active environment?" (foreseeability level), (4) "Did the environmental circumstances warrant the individual's actions?" (justification level), and (5) "Was the behavior of the individual premeditated and unwarranted within the context of the situation?" (intentionality level).

If the levels are ordered from association to commission to foreseeability to justification to intentionality, then the assumption is that at the successive levels, the active environment is viewed as a less influential agent in causing the behavior of the actor and in producing the outcome. Thus, the prediction is that observers should assign increasing amounts of responsibility to the primary actor at each successive level. However, as will be discussed shortly,

some argument exists for ordering the level of justification prior to the level of foreseeability. Moreover, empirical evidence has shown that a complex interaction exists between the levels of causality and outcome characteristics in determining the degree to which an actor is held responsible for the final outcome.

Five experiments have been conducted to examine observers' assignment of responsibility to an actor as a function of the five levels of causality (Shaw and Reitan, 1969; Shaw and Sulzer, 1964; Sulzer, 1964). The results of the experiments will be summarized together. All experiments used questionnaires to present a variety of action situations to adult observer-subjects. Two experiments explicitly differentiated the outcome of each situation as positive or negative, but did not manipulate the intensity of the outcome (Shaw and Sulzer, 1964). Three experiments explicitly differentiated the outcome for each situation as a low to high positive or negative outcome (Shaw and Reitan, 1969; Sulzer, 1964). The observer-subjects were asked to specify the degree to which the primary actor should be held responsible for the outcome. To expedite the discussion of the findings, "AR" will refer to observers' assignment of responsibility to the primary actor.

The findings generally supported the expected ordering of the levels. Overall, observers' responsibility assignment increased from association to commission to

foreseeability to justification to intentionality. However, the order of foreseeability and justification was usually reversed for positive and negative outcomes. For positive outcomes AR increased from association to commission to foreseeability to justification to intentionality. For negative outcomes AR increased from association to commission to justification to foreseeability to intentionality.

Within the context of ordering the levels, another finding is worth noting regarding observers' AR at the polar levels of association and intentionality. At the level of association AR tended to be minimal while at the level of intentionality AR tended to be maximal irrespective of outcome characteristics, i.e. AR was relatively unaffected by outcome valence and intensity at the polar levels of association and intentionality.

However, at the three intermediate levels of causality (commission, foreseeability, justification), observers' AR was differentially affected by outcome valence and intensity. First, at the level of commission the evidence revealed that AR tended to be higher for positive outcomes than for negative outcomes. Moreover, AR tended to increase as positive outcomes became more favorable, but tended to decrease as negative outcomes became more severe. Second, at the level of foreseeability AR tended to be higher for negative outcomes than for positive outcomes. Also, AR tended to increase as positive outcomes became more favorable (some

evidence indicated the reverse) and tended to increase as negative outcomes became more severe. Finally, at the level of justification AR tended to be higher for positive outcomes than for negative outcomes, but some evidence indicated the reverse. Furthermore, AR tended to increase as both positive and negative outcomes became more extreme.

Conceptually, these findings suggest then that observers' AR is not simply a function of the relative contribution of the primary actor and the active environment as objectively depicted in action situations at each level. Not only did the ordering of the levels change depending upon outcome valence but also the pattern of AR as a function of outcome valence and intensity was different within each level. Moreover, the evidence did not always portray the same pattern of AR within levels, especially within the levels of foreseeability and justification.

In general, the ordering of the levels conformed to the notion that in action situations at each successive level, the primary actor is objectively depicted as having a more influential causal role in producing the final outcome than the active environment. However, the fact that the pattern of AR changed across levels suggests that it is the dynamics or nature of the interaction among causal agents which determine observers' assignment of responsibility as a function of outcome characteristics. For example, at the polar levels of causality (association and

intentionality), the relative amount of AR by observers was quite different but the pattern of AR was quite similar. At the level of association AR tended to be minimal while at the level of intentionality AR tended to be maximal. However, at both levels the pattern of AR was relatively unaffected by outcome characteristics. In contrast, at the intermediate levels of causality (commission, foreseeability, justification) not only was the relative amount of AR different but also the pattern of AR was different for each level.

An explanation for these general findings begins with the observation that the levels of association and intentionality represent opposite poles of a causality continuum. At the level of association the primary actor has virtually no influence in producing the final outcome while at the level of intentionality the primary actor has essentially total control and influence in producing the final outcome. Thus, the causal roles of the primary actor and the active environment are clearly differentiated and unambiguous and are therefore, minimally subject to differential interpretation by observers. The result is that the primary actor is not held responsible at the level of association, but is held totally responsible at the level of intentionality irrespective of the nature of the final outcome.

However, at the intermediate levels, not only does the primary actor and the active environment more clearly share

a causal role in producing the final outcome than at the polar levels of causality but also the nature of the causal role shared by the primary actor and the active environment changes from level to level. First, in action situations at the level of commission, the primary actor acts as most other people would have acted in order to accomplish a particular outcome, i.e. his specific actions are justified relative to his intended goal. Furthermore, his specific actions merely set in motion the active environment which actually produces a final outcome which is definitely unforeseeable, uncontrollable, and unintended.

Second, in action situations at the level of foreseeability, the primary actor could have foreseen the final outcome if he had taken into account all of the circumstances surrounding his behavior. However, the available information at this level is quite ambiguous as to whether or not the actor actually foresaw the final outcome and whether or not his specific actions were justified.

Finally, in action situations at the level of justification, the primary actor does actually foresee the final outcome. In addition, his specific actions are explicitly justified by extenuating circumstances and coercive forces such as orders, threats, or ultimatums, i.e. the coercive active environment has a share in producing the actions that led to the final outcome.

Thus, the action situations at the intermediate levels

differ primarily in terms of the "dynamics of foreseeability and justification." At the level of commission, the outcome is unforeseeable and the specific actions of the primary actor are justified. At the level of foreseeability, the outcome is foreseeable, but the justifiability of the actor's behavior is ambiguous. At the level of justification, the outcome is foreseeable, but the specific actions of the actor are explicitly justified. Thus, the action situations at the levels of commission and justification are similar, yet distinct from those at the level of foreseeability, in that the actor's specific actions are justified. In contrast, the action situations at the levels of foreseeability and justification are similar, yet distinct from those at the level of commission, in that the outcomes are at least potentially foreseeable.

The importance of these similarities and differences in explaining the different patterns of AR will be examined in more detail shortly. However, at this point, the important notion is that the relative contributions of the primary actor and the active environment are not as clearly differentiated and unambiguous as was the case with the polar levels of association and intentionality. The result is that the objective information about the dynamics of the interaction among causal agents is more conducive to subjective interpretation on the part of observers. As such, observers' assignment of responsibility is more likely to

be affected by outcome characteristics at the intermediate levels of causality than at the polar levels of causality.

As indicated, the distinctions among the three intermediate levels in terms of the "dynamics of foreseeability and justification" may explain the different patterns of AR that were found at these levels. The fact that the patterns of AR changed across levels has major implications for resolving the inconsistencies from past research. The failure in past research to find the same pattern of AR raises the possibility that researchers have inadvertently employed action situations which represented different levels of causality. As a result, researchers have failed to find overall support for any particular theoretical approach to observers' responsibility assignment, in particular, defensive attribution.

However, if the patterns of AR found by Shaw and his associates are examined closely, then support for defensive attribution can be found. But the degree to which defensive attribution is supported varies from level to level. Recall the predictions of defensive attribution. Defensive attribution predicts that observers hold actors more responsible for negative outcomes than for positive outcomes and that responsibility increases as negative outcomes become more severe.

When the patterns of AR at the three intermediate levels are examined, the majority of the evidence seems to

indicate that substantial support for defensive attribution is found in action situation involving foreseeable outcomes. However, support for defensive attribution appears to weaken in action situations involving justifiable actions. For example, at the level of foreseeability where outcomes are at least potentially foreseeable, defensive attribution is substantiated. As predicted by defensive attribution, observers held actors more responsible for undesirable negative outcomes than for desirable positive outcomes and more responsible as these undesirable outcomes became more severe.

However, when we turn to the level of justification which includes not only foreseeable outcomes but also justifiable actions, support for defensive attribution diminishes. Even though some evidence revealed the same pattern as was found at the level of foreseeability, the majority of the evidence contradicted defensive attribution in terms of the effect of outcome valence. Observers held actors more responsible for desirable outcomes than for undesirable outcomes. It appears then that justifiability, especially the existence of coercive facilitative forces, detracts substantially from the responsibility of the actor for negative outcomes but not for positive outcomes. Thus, observers seem to hold actors responsible for positive outcomes which are the result of actions consistent with coercive forces directed toward the production of beneficial outcomes. However, observers do not seem to hold actors responsible for

negative outcomes which are the result of actions produced under coercion.

This latter contention is further supported by the findings which relate to ordering the levels of foreseeability and justification for positive and negative outcomes. Recall that for positive outcomes AR generally increased from foreseeability to justification while for negative outcomes AR generally decreased from foreseeability to justification. The distinctive feature between these two levels is that the actions of the primary actor are justifiable at the level of justification but not at the level of foreseeability. Thus, it appears that observers hold actors more responsible for positive outcomes which are foreseeable and consistent with coercive forces than for positive outcomes which are foreseeable but lack explicit justification. In contrast, it appears that observers hold actors less responsible for foreseeable outcomes produced under coercion than for negative outcomes which could have been avoided.

Thus, at this point, action situations with foreseeable outcomes appear to be conducive to the operation of defensive attribution. At the level of foreseeability AR is higher for negative outcomes than for positive outcomes and AR increases as negative outcomes become more severe. Likewise, at the level of justification which involves foreseeable outcomes AR increases as negative outcomes become more severe.

However, the inclusion of justifiable actions through coercion does not appear to be conducive to the operation of defensive attribution with respect to outcome valence. Unlike at the level of foreseeability, the majority of the evidence indicates that observers hold actors more responsible for beneficial outcomes than for undesirable negative outcomes. Moreover, AR decreases for undesirable outcomes from the level of foreseeability to the level of justification.

But when we turn to the level of commission which includes not only justifiable actions but also unforeseeable outcomes, support for defensive attribution essentially disappears. At this level observers held actors more responsible for positive outcomes than for negative outcomes and also less responsible as these negative outcomes became more severe. Thus, the combination of justifiable actions and unforeseeable outcomes leads to a contradiction of defensive attribution.

Up to this point, the discussion has only concerned the effects of outcome valence and severity of negative outcomes. But when the findings with respect to the favorability of positive outcomes are examined, one must deal with the two alternative formulations of defensive attribution discussed earlier in the literature review. Recall that these two alternative formulations made opposite predictions only with respect to intensity of positive outcomes. The formulation

by Shaw and Skolnick (1971) predicted that as positive outcomes become more favorable AR should decrease while the formulation by Walster (1967) predicted exactly the opposite.

When the findings are examined at all three intermediate levels, the approach of Walster (1967) seems to receive the most support. At all three intermediate levels, evidence revealed that as positive outcomes became more favorable AR tended to increase. Thus, these findings are consistent with Walster's position that observers operate as if they could possibly be the cause of the observed outcomes in a similar set of circumstances. As such, they convince themselves that they would have anticipated the outcomes and appear to be willing to hold actors responsible for the desirable outcomes that they also would have caused had they been in that situation.

However, there are several important observations worth noting here. First, the findings at the level of foreseeability were somewhat equivocal with respect to the favorability of positive outcomes. Some evidence indicated that AR decreased, not increased, as positive outcomes became more favorable. Thus, both formulations of defensive attribution received some support at this level. Even though there was conflicting evidence, the important point is that the basic predictions from either version of defensive attribution finds overall support at this level. Observers held actors

more responsible for undesirable outcomes than for desirable outcomes and more responsible as undesirable outcomes became more severe.

Second, to some extent, support for defensive attribution is found at the level of justification as well. Similar to the level of foreseeability, the level of justification includes foreseeable outcomes and the evidence again revealed that AR increased as both positive and negative outcomes became more extreme. However, with the introduction of justifiable actions, defensive attribution predictions for the effect of outcome valence are not supported. In fact, most evidence indicated AR was higher for beneficial outcomes than for undesirable negative outcomes.

Finally, support for the defensive attribution theory formulated by Walster (1967) diminishes even further at the level of commission. When the outcomes were unforeseeable and uncontrollable, observers held actors more responsible for desirable outcomes than for undesirable outcomes. Moreover, observers held actors less responsible as these undesirable outcomes became more severe but more responsible as the desirable outcomes became more favorable. This pattern of AR is precisely opposite to that predicted by Shaw and Skolnick (1971).

In conclusion, the findings demonstrate that patterns of AR as a function of outcome characteristics and in turn, support for defensive attribution, depends upon the level of

causality as objectively depicted in different types of action situations. Therefore, these findings support the likelihood that one major problem in past research has been that different researchers have employed action situations which represented different levels of causality. As such, demonstrated patterns of AR have varied from study to study because observers were interpreting the nature of the actor's role at different levels of causality. Consequently, researchers have failed to consistently find overall support for any particular approach to observers' assignment of responsibility as a function of outcome characteristics. In fact, the overall implication for research on levels of causality is that all conceptual approaches to causal attributions and responsibility assignment may be correct. However, support for any particular approach likely depends upon the level of causality at which actors and observers are operating.

Statement of Objectives

Researchers have examined the effects of outcome valence (positive or negative) and outcome intensity (low or high) on actors' and observers' assignment of responsibility. Studies have indicated that observers hold actors more responsible for negative outcomes than for positive outcomes while actors hold themselves more responsible for positive outcomes than for negative outcomes. Moreover, studies have indicated that the discrepancy between positive and negative

outcomes increased for both actors and observers as outcomes became more extreme. The theory of defensive attribution and the corresponding concept of self-interest were developed to account for these results.

However, other research that has examined actor-observer differences as a function of outcome characteristics have yielded findings that were inconsistent and sometimes opposite of the predictions based on the defensive attribution approach. One possible problem with past research has been that researchers have employed a diverse set of action situations. These researchers have tested the same hypotheses but have employed action situations which have varied along two definable dimensions. Since action situations represent stimuli for making attributions of causality and assigning responsibility, the fact that studies have varied the two dimensions may account for the inconsistencies from past research.

The first dimension relates to the objective information that is made available to subjects about the nature of the interaction between the actor and the active environment in producing the final outcome. Shaw and his associates have demonstrated that the degree to which observers hold actors responsible for a low to high positive or negative outcome depended upon the nature of the interaction between the actor and environmental forces as objectively depicted in action situations.

The research of Shaw and his associates was based on five "contextual levels of causality" which differentially represented the nature of the actor's role and the relative influence that the actor had in producing the final outcome. The five levels were association, commission, foreseeability, justification, and intentionality. Similarly, Fishbein and Ajzen (1973) proposed that the inconsistencies in past research may be due to the fact that conflicting studies employed action situations at different levels of causality. However, past research has not systematically examined both actors' and observers' responsibility assignment as a function of the five levels of causality. Hence, a major objective of the present study is to examine both actors' and observers' assignment of responsibility as a function of outcome characteristics across the five levels of causality.

The second dimension relates to the salience of the information available to actors and observers. Researchers have indicated that actors tend to attribute causality and assign responsibility to situational determinants of his own behavior while observers tend to attribute causality and assign responsibility to the actor. The discrepancy hypothesis was formulated to account for these findings. The hypothesis suggested that actors tend to focus their attention on external situational determinants of his own behavior and the final outcome while observers tend to focus their attention on the behavior of the actor in accounting for the final outcome. Therefore, environmental forces are

perceptually most salient for actors while the behavior of the actor is perceptually most salient for observers.

However, the discrepancy hypothesis did not deal specifically with the effect of outcome characteristics. Duval and Wicklund's "theory of objective self-awareness" is an extension of the discrepancy hypothesis applied to actor's assignment of responsibility. The research generated by this theory indicated that if an actor's attention is redirected to his own behavior, then the actor holds himself more responsible for both positive and negative outcomes than an actor whose attention is not redirected. The supposition is that focusing an actor's attention upon himself increases his self-awareness and is functionally equivalent to increasing the salience of the actor's behavior and his role in producing the final outcome.

Hence, the second objective of the present study is to examine the impact of increasing an actor's self-awareness on his assignment of responsibility as a function of outcome characteristics. Operationally, Duval and Wicklund's study demonstrated that an actor's self-awareness could be effectively increased by exposing the actor to his own visual image with the use of mirrors. Hence, the methodology to be employed in the present study for the focus of attention manipulation will be patterned after that of Duval and Wicklund.

Derivation of Hypotheses

In line with the stated objectives, the present study was designed to test several hypotheses that were derived from the theoretical positions and research related to Heider's five levels of causality, the theory of defensive attribution, the discrepancy hypothesis, and the theory of objective self-awareness.

The work of Shaw and his associates on Heider's five levels of causality indicated that the five levels should be ordered differently for positive and negative outcomes. Based on the research of Shaw and his associates, it was expected that in the case of positive outcomes, observers would hold actors more responsible from association to commission to foreseeability to justification to intentionality (Hypothesis 1). However, in the case of negative outcomes, their research suggested that the ordering of foreseeability and justification should be the reverse of the ordering found for positive outcomes. Therefore, the expectation was that for negative outcomes, observers would hold actors more responsible from association to commission to justification to foreseeability to intentionality (Hypothesis 2). The hypothesized reversal of the foreseeability and justification levels was based on the contention that the coercion which is present in action situations at the level of justification detracts substantially from the responsibility of the actor for negative outcomes but not for positive outcomes.

Additional hypotheses pertaining to observers' assignment of responsibility were derived based on the work of Shaw and his associates which indicated that the effect of outcome valence and intensity depended upon the level of causality. First, at the level of association, observers' AR was expected to be relatively unaffected by outcome characteristics (Hypothesis 3). This hypothesis was based on the findings of Shaw and his associates that AR tended to be minimal irrespective of outcome characteristics. The hypothesis was additionally based on the contention that the objective causal role of the actor is minimal and clearly differentiated from the causal role of the active environment and as such minimally subject to interpretation on the part of observers.

Second, at the level of commission, observers' AR was expected to be higher for positive outcomes than for negative outcomes. In addition, AR was expected to increase as positive outcomes became more favorable but decrease as negative outcomes became more severe (Hypothesis 4). This hypothesis was opposite to predictions based on defensive attribution as formulated by Walster (1966) and Shaw and Skolnick (1971). The hypothesis was based on the contention that at the commission level, the actor's behavior is justifiable and the outcomes are unforeseeable and uncontrollable. As such, action situations at this level do not represent conditions hypothesized to produce defensive attribution. Moreover, the findings of Shaw and his associates provided support for this predicted pattern of AR by observers.

Third, at the level of foreseeability, AR by observers was expected to be higher for negative outcomes than for positive outcomes and was expected to increase as both positive and negative outcomes became more extreme (Hypothesis 5). This hypothesis was based on the contention that the objective information at this level regarding the foreseeability of the outcome and the justifiability of the actor's behavior is quite ambiguous. As such, action situations at this level represent conditions which are conducive to the operation of defensive attribution. The prediction conforms to the position of Walster (1967) which received substantial support in the research of Shaw and his associates. However, if the present study finds that AR decreases as positive outcomes become more favorable, it would support the defensive attribution approach of Walster (1966) and Shaw and Skolnick (1971).

Fourth, at the level of justification, observers' AR was expected to be higher for positive outcomes than for negative outcomes and was expected to increase as positive and negative outcomes became more extreme (Hypothesis 6). This hypothesis was based on the findings supporting the contention that the coercive active environment detracts substantially from the responsibility of the actor for negative outcomes but not for positive outcomes. However, the fact that the actor foresees the consequences of his actions leads observers to hold actors responsible commensurate with the intensity of the final outcome whether that outcome is positive or negative. The

hypothesis was also supported by the majority of the findings of Shaw and his associates.

Finally, at the level of intentionality, observers' AR was expected to be relatively unaffected by outcome characteristics (Hypothesis 7). This hypothesis was based on the findings of Shaw and his associates that AR tended to be maximal irrespective of outcome characteristics. The hypothesis was further based on the contention that the objective causal role of the actor is maximal and clearly differentiated from the causal role of the active environment and as such minimally subject to interpretation on the part of observers.

Hypotheses 1 and 2 which concerned observers' assignment of responsibility for positive and negative outcomes across levels can be used as a reference point for examining actor-observer differences. What follows is the derivation of hypotheses pertaining to actor-observer differences in responsibility assignment as a function of outcome characteristics, as a function of the five levels of causality, and as a function of redirecting an actor's attention to himself so as to increase his self-awareness.

Hypotheses 1 and 2 stated that the ordering of the levels in terms of observers' assignment of responsibility would be different for positive and negative outcomes. Hypothesis 1 stated that for positive outcomes, observers' AR would increase from association to commission to foreseeability to justification to intentionality. Hypothesis 2 stated that for negative outcomes, observers' AR would increase from association to

commission to foreseeability followed by a drop at the level of justification and then another substantial increase at the level of intentionality.

But research on defensive attribution has indicated that the assignment of responsibility by actors and observers differs as a function of the positivity or negativity of the final outcome. Research findings related to defensive attribution have indicated that compared to observers, actors tend to hold themselves more responsible for positive outcomes but tend to hold themselves less responsible for negative outcomes. Thus, the two initial hypotheses can be expanded to include expected discrepancies between actors' and observers' responsibility assignment as a function of outcome characteristics and the five levels of causality. In the case of positive outcomes, actors should assign greater responsibility to themselves than observers should assign to actors across all five levels of causality (Hypothesis 8). In the case of negative outcomes, actors should assign less responsibility to themselves than observers should assign to actors across all five levels of causality (Hypothesis 9).

Next, research on the theory of objective self-awareness has indicated that for positive and negative outcomes, actors whose self-awareness is increased tend to hold themselves more responsible than actors whose self-awareness is not increased. These findings along with the research on the discrepancy hypothesis suggest a rank order for three groups of subjects:

(1) actors whose self-awareness is increased, (2) actors whose self-awareness is not increased, and (3) observers. However, the ranking of the three groups of subjects was expected to be different for positive and negative outcomes. For positive outcomes, AR by actors whose self-awareness is increased should be higher than AR by actors whose self-awareness is not increased which in turn should be higher than AR by observers. Furthermore, the ranking of the three groups should be the same across all five levels of causality (Hypothesis 10). In contrast, for negative outcomes, AR by actors whose self-awareness is not increased should be less than AR by actors whose self-awareness is increased which in turn should be less than AR by observers. Moreover, the ranking of the three groups should be the same across all five levels of causality (Hypothesis 11).

Finally, relative to actors' assignment of responsibility within each level of causality rather than across levels, two hypotheses may be derived based on defensive attribution and the corresponding notion of self-interest. Actors should take more responsibility for positive outcomes than for negative outcomes across all five levels of causality (Hypothesis 12). Moreover, actors should take more responsibility as positive outcomes become more favorable but should take less responsibility as negative outcomes become more severe across all five levels of causality (Hypothesis 13).

METHOD

Subjects

The Ss were 60 male undergraduate students enrolled in psychology courses at Louisiana State University. The Ss were volunteers, participated individually in the experiment, and received extra course credit for participating.

Construction of Action Situations

A pool of 20 action situations was used (Appendix A). The 20 action situations corresponded to a 5 x 2 x 2 factorial arrangement of the five levels of causality (association, commission, foreseeability, justification, intentionality), the two levels of outcome valence (positive, negative), and the two levels of outcome intensity (low, high). Through the appropriate use of names and pronouns in referring to the primary actor in each situation, the wording of the situations was consistent with the role of the Ss as actors or observers.

The pool of 20 action situations was developed and validated in three stages. First, a large pool of action situations was obtained. Each situation was either original or was adapted from questionnaires developed by Shaw and his associates. The situations were written to satisfy operational definitions of three dimensions (outcome valence, outcome intensity, level of causality) and some specific criteria which are given below.

The first two dimensions (outcome valence and intensity) refer to the nature of the final outcome as stated in the "assignment of responsibility" question which follows each situation (see Appendix A). The final outcome is positive (favorable, desirable) or negative (unfavorable or undesirable) and varies in intensity, i.e. the degree of positivity or negativity (low, high).

The level of causality dimension refers to the nature of the primary actor's role in producing the final outcome

I. Association level. The actions of the primary actor are unrelated to the final outcome, but the primary actor is indirectly related to the final outcome by virtue of a personal unit relationship with other people whose actions do lead to the final outcome.

II. Commission level. The actions of the primary actor lead to the final outcome, but the final outcome is not intended and the primary actor could not have known or anticipated the consequences of his actions.

III. Foreseeability level. The actions of the primary actor result in the final outcome and the final outcome is not intended, but the primary actor could have known or anticipated the consequences of his actions.

IV. Justification level. The primary actor foresees the consequences of his actions, but extenuating circumstances and/or external coercive forces operate to warrant or facilitate his actions.

V. Intentionality level. The primary actor foresees the consequences of his actions and he acts to produce the final outcome in spite of circumstances and environmental forces which operate to inhibit his behavior.

The action situations were also written to satisfy four specific criteria: (1) at the level of association, the primary actor is always indirectly related to the final outcome by virtue of a sibling relationship with his brother, (2) the name of the primary actor is different for each situation, (3) the primary actor is never the actual recipient of the final outcome, i.e. someone or something else is always the direct object of harm or benefit, and (4) the grammatical structure of the assignment of responsibility question is constant in that the recipient is always the subject of a verb phrase which states the final outcome (e.g. To what degree is "the actor" responsible for "the recipient" being killed?).

The second stage in developing the 20 action situations involved a series of validation sessions with psychology graduate students (n=12). The students were requested to categorize each action situation according to the operational definitions of the three dimensions. Each dimension was discussed and illustrated in detail prior to categorizing the situations. The wording of the situations always corresponded to observer-Ss. If disagreement occurred in categorizing an action situation, then the situation was

re-written or deleted based on discussion with the graduate students concerning the source of the difficulty. If no disagreement occurred, then the situation was kept. The final pool of 20 action situations for which total agreement was obtained was selected for use in a second preliminary study with undergraduate students enrolled in an introductory psychology course. This second preliminary study constituted the third and final stage in verifying that the five levels of causality were validly represented by the 20 action situations.

The purpose was to determine if objective distinctions among the five levels of causality were validly reflected in the 20 action situations. Based on the operational definitions of the five levels, the five levels were expected to be distinguishable along four dimensions: foreseeability, intentionality, causality, and justification. Each dimension refers to the nature of the actor's role in producing the final outcome. Each dimension is defined below and the expected distinctions among the levels along each dimension are stipulated.

To determine if objective distinctions among the levels were validly reflected in the action situations, undergraduate students were asked to evaluate the role of the primary actor along one of the four dimensions. The Ss evaluated the role of the actor along only one dimension for all 20 action situations. The Ss (n=55) were asked to

read each situation and to indicate the degree to which they honestly thought that the outcome was foreseeable (n=11), that the outcome was intended (n=15), that the actions of the actor caused the outcome (n=14), or that the actions of the actor were justified (n=15).

Each of the four dimensions were defined as follows. Foreseeability referred to the degree to which the actor could have anticipated that his actions would result in the final outcome. Intentionality referred to the degree to which the final outcome was part of the goals of the primary actor. Causality referred to the degree to which the final outcome was a result of the actions of the actor. Justification referred to the degree to which the actions of the actor were warranted.

For each situation the Ss were asked to indicate what they thought by checking a 21-point percentage scale which ranged from 0% to 100% in units of 5%. The wording of the situations always corresponded to observer-Ss and answer sheets were provided with the appropriate question and the percentage scale for each situation (e.g. see Appendix D). The general form of the questions for each situation were as follows: (1) To what degree could "the actor" foresee "the final outcome?", (2) To what degree was "the final outcome" "the actor's" intention?, (3) To what degree did "the actor's" actions cause "the final outcome?", or (4) To what degree were the actions of "the actor" justified?

The mean percentage-response of the Ss was determined for the four situations at each level of causality. The mean foreseeability, intentionality, causality, and justification are graphically presented in Figures 1 through 4, respectively. The general pattern of the means for each dimension was expected to be as follows based on the operational definitions of the levels and was supported overall. First, the overall expectation was that foreseeability (Figure 1), intentionality (Figure 2), and causality (Figure 3) would increase from association to commission to foreseeability to justification to intentionality. However, justification (Figure 4) was expected to generally decrease from association to commission to justification to foreseeability to intentionality.

Second, some specific expectations for each dimension were as follows and were generally supported: (1) foreseeability (Figure 1) was expected to be relatively high at the levels of justification and intentionality, relatively low at the levels of association and commission, but intermediate at the level of foreseeability; (2) intentionality (Figure 2) was expected to be relatively high at the levels of justification and intentionality but relatively low at the levels of association, commission, and foreseeability; (3) causality (Figure 3) was expected to be relatively high at the levels of foreseeability, justification, and intentionality but relatively low at the levels of

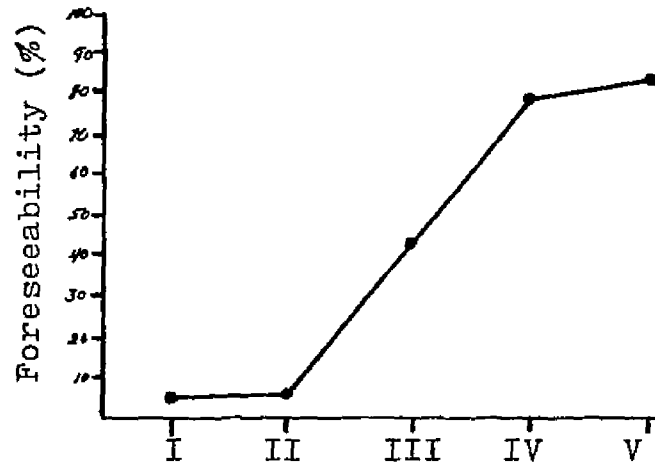


Figure 1. Mean percent foreseeability by level for question, "To what degree could X foresee that his actions would lead to Y?"

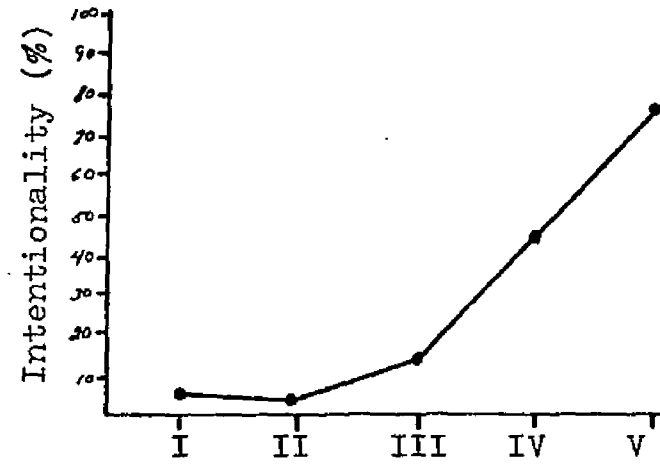


Figure 2. Mean percent intentionality by level for question, "To what degree was Y X's intention?"

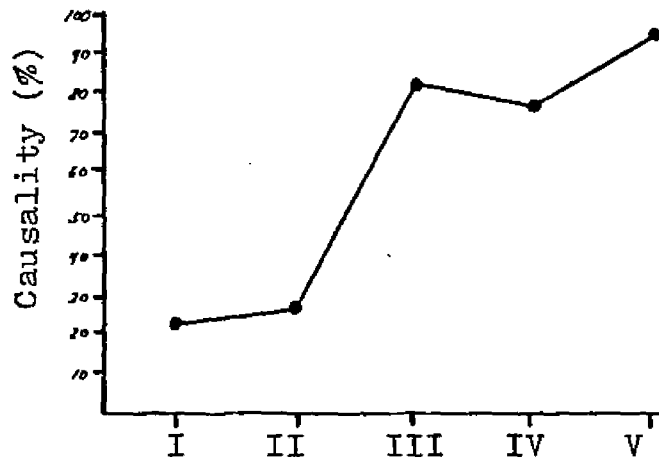


Figure 3. Mean percent causality by level for question, "To what degree did X's actions cause Y?"

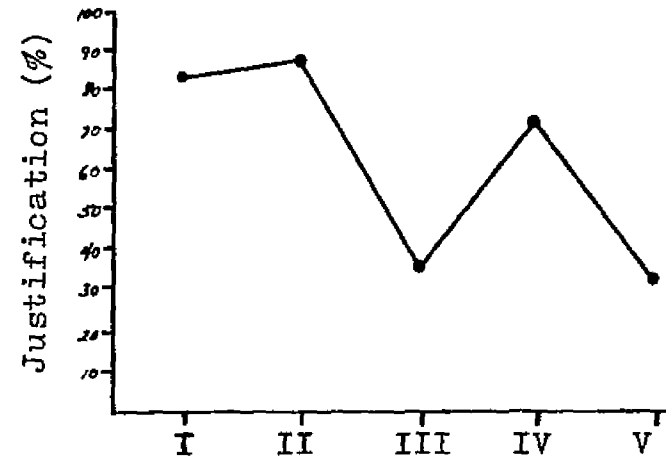


Figure 4. Mean percent justification by level for question, "To what degree were X's actions justified?"

association and commission; (4) justification (Figure 4) was expected to be relatively high at the levels of association, commission, and justification but relatively low at the levels of foreseeability and intentionality.

Since these general expectations were supported overall, the five levels of causality were satisfactorily represented in the 20 action situations used in the present study.

Procedure

The 60 Ss were assigned at random to the three "subject role - focus of attention" conditions with 20 Ss per group (actors with focus, actors without focus, and observers). When each S arrived at the experimental room, the S was greeted by the E. Each S was then led into the experimental room and asked to sit at a table. At this point, the procedure for each S in the "no focus" and "focus" conditions was different.

Actor-Ss and observer-Ss in the "no focus" condition only participated in the "assignment of responsibility" task. Each S was handed a written set of instructions which corresponded to his role as an actor or as an observer (Appendix B). An answer sheet was provided along with these instructions (Appendix C). As the E handed the materials to the S, the E told each S, "Here are some instructions which will explain what we'll be doing. Would you please take your time and read these instructions thoroughly very carefully. When you're finished, I will

answer any questions you might have."

In these instructions, each S was asked to read each situations and to indicate the degree to which he, as the actor, or the central character, as an observer, was responsible for the final outcome in each situation. The 20 situations were presented in random order to each S by means of a slide projector. Each slide contained one action situation along with the assignment of responsibility question which was appropriately phrased for his role as an actor or as an observer. Each action situation was numbered on the slide and the order in which the situations were presented to each S was given on the S's answer sheet. Each S was asked to indicate what he honestly thought was the appropriate degree of responsibility by using the percentage scale which was provided at the top of the answer sheet (Appendix C). The scale was a 21-point percentage scale ranging from 0% to 100% in units of 5%.

After each S finished reading the instructions and all questions were answered, the S was shown two practice slides to familiarize the S with the procedure, to make sure the projector was focused properly, and to make sure the S had no further questions. The practice slides contained the following two action situations and the S was asked to indicate his answer to the assignment of responsibility question at the end of the instructions: (1) One day

several of Karl's (your) fraternity brothers were fishing at the lake. They found a fishing rod in the bushes and broke it. To what degree is Karl (are you) responsible for the fishing rod being broken? and (2) Walter was (You were) making some business telephone calls. When the phone rang in one home Walter (you) called, it awakened a man who was sleeping near a broken gas heater. If he had not awakened, the leaking gas would have killed him. To what degree is Walter (are you) responsible for the man's life being saved?

After the two practice slides had been shown and all questions were answered, the E told the S, "Just to repeat before we start, remember that there are no right or wrong answers. The purpose of what we're doing is to find out what people honestly think is the appropriate degree of responsibility for things that happen. Again, please read each story very carefully and try to imagine that you are actually a witness (if the S was an observer) or actually involved (if the S was an actor) before you indicate what you honestly think is the appropriate degree of responsibility in each case. If you don't have any questions, then we will start."

The procedure for each actor-Ss in the "focus" condition was as follows. Each S was greeted by the E as was done with the Ss in the "no focus" condition. The S was led into the experimental room and asked to sit at a table.

The table had mirrors located on the front and on two sides of the table like a library study carrel. The Ss were told that they were to perform two tasks, the first one being a simple clerical task which required the use of the mirrors. The carrel was constructed such that the actor-Ss under focus of attention were exposed to their full frontal and profile image throughout their participation in the assignment of responsibility task. The slides were projected onto the wall in front of the S such that the S had to look up over the front mirror to read the situations. As the S looked up and down in reading the situations and answering the assignment of responsibility questions, he was constantly exposed to his own image. Patterned after the study by Duval and Wicklund (1973), this manipulation was to increase the self-awareness of the actor-Ss throughout his participation in the assignment of responsibility task.

Before the S participated in the assignment of responsibility task, he was asked to perform a simple clerical task. The purpose of the clerical task was to provide a rationale for the presence of the mirrors. The Ss were given a verbal set of instructions for performing the clerical task (Appendix D). The clerical task required each S to copy an IBM answer sheet that was already marked onto a blank IBM sheet. The two IBM sheets were placed between an opaque partition and the front mirror. Upon completion of the clerical task, the S was informed of his performance. Then, the IBM sheets and

partition were removed, but the mirrors remained for the "focus of attention" manipulation. The E then handed the S the materials for the assignment of responsibility task. The remainder of the procedure was exactly the same as that for actor- and observer-Ss in the "no focus" condition.

All Ss were debriefed after their participation and each was given a card signed by the E so that each S could notify his teacher that he had participated in the experiment for extra course credit.

Design

A completely randomized design with a split-plot arrangement of factors was employed (Appendix E). The Between-Ss partition of the analysis of variance involved the three "subject role - focus of attention" groups (actors with focus, actors without focus, and observers). The Within-Ss partition involved the 20 action situations which represented a 5 x 2 x 2 factorial arrangement of level of causality, outcome valence, and outcome intensity. The dependent variable was the amount of responsibility assigned for the outcome in each action situation (AR).

RESULTS AND DISCUSSION

The purpose of the present study was to compare actors' and observers' assignment of responsibility in action situations. The action situations differed in two respects. The action situations differed not only in terms of five levels of causality but also in terms of the nature of the final outcome. The five levels of causality were association, commission, foreseeability, justification, and intentionality. The final outcome in each action situation differed in both valence and intensity. That is, the final outcome in each action situation was either a low or high positive or negative outcome. Thus, all research questions concerned actors' and observers' assignment of responsibility as a function of level of causality and outcome characteristics as objectively depicted in action situations.

Of the 13 hypotheses tested in this study, seven hypotheses (Hypotheses 1-7) dealt exclusively with observers' assignment of responsibility. The findings related to these seven hypotheses will be considered prior to the findings related to the hypotheses dealing with actor-observer differences, namely Hypotheses 8-13.

Hypotheses 1-7 concerned observers' assignment of responsibility to actors. To investigate these hypotheses, an analysis of variance was conducted using data obtained from observers only. The objective was to assess the effects of levels of causality and outcome characteristics on the

degree to which observers held actors responsible. The dependent variable was the amount of responsibility (AR) assigned by observers for the final outcome in each action situation. The results of this analysis of variance are given in Table 1. The results of this analysis and the results of orthogonal comparisons will be discussed within the context of the relevant hypotheses.

Hypotheses 1 and 2 concerned observers' assignment of responsibility for positive and negative outcomes across the five levels of causality. It was expected that observers' assignment of responsibility would increase across the five levels of causality, but the increase across levels (i.e. the ordering of the levels) in the mean AR assigned by observers would depend upon outcome valence. The results of the analysis of variance supported this expectation (Table 1). The highly significant level x valence interaction, $F(4,361) = 11.96$, $p < .01$, indicated that the changes in observers' assignment of responsibility across levels was affected by the valence of the final outcomes.

The findings related to Hypothesis 1 and Hypothesis 2 will be presented separately. The data relevant to these two hypotheses are contained in Table 2 and Figure 5. Table 2 contains the mean AR by observers for positive and negative outcomes at each level of causality while Figure 5 presents these means graphically.

Table 1
 Analysis of variance for observers'
 assignment of responsibility
 to actors

Source	df	SS	MS	F
Subject	19	12132.790		
Level (L)	4	378123.140	94530.785	169.34 **
Valence (V)	1	3981.610	3981.610	7.31 **
Intensity (I)	1	961.000	961.000	1.72
L x V	4	26698.940	6674.735	11.96 **
L x I	4	4414.000	1103.500	1.98
V x I	1	81.000	81.000	0.15
L x V x I	4	10309.000	2577.250	4.62 **
error	361	201524.110	558.239	
total	399	638225.590		

* $p < .05$

** $p < .01$

Table 2

Mean amount of responsibility assigned by actors, observers, and actors with the self-awareness manipulation (SA actors) for positive and negative outcomes at each level of causality and overall: association (Level I), commission (Level II), foreseeability (Level III), justification (Level IV) and intentionality (Level V)

Role	Valence	Level					Overall
		I	II	III	IV	V	
Actor	Positive	7.1	27.1	75.0	80.5	85.8	55.1
	Negative	4.6	21.6	80.2	55.3	97.9	51.9
Observer	Positive	6.9	42.1	67.6	72.4	86.0	55.0
	Negative	6.6	10.4	78.4	53.9	94.3	50.7
SA Actor	Positive	3.3	35.3	75.8	88.1	90.9	58.7
	Negative	7.3	15.6	80.9	69.3	97.6	54.1

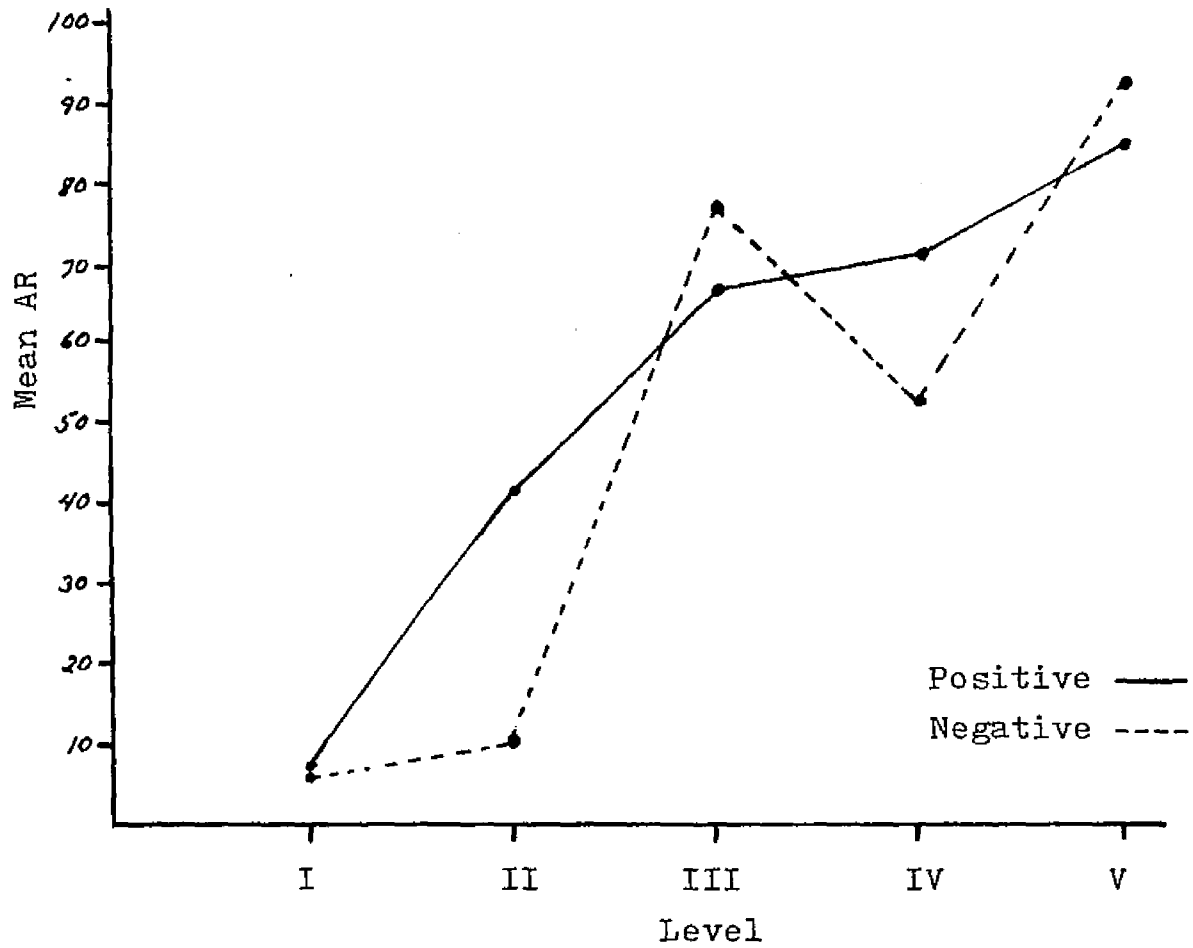


Figure 5. Mean amount of responsibility (AR) assigned by observers for positive and negative outcomes at each level of causality: association (I), commission (II), foreseeability (III), justification (IV), and intentionality (V).

Hypothesis 1 predicted that for positive outcomes, observers would hold the actor more responsible from association to commission to foreseeability to justification to intentionality. This prediction was based on the contention that relative to the causal role of the active environment, the potency of the actor's causal role in action situations objectively increases from association to commission to foreseeability to justification to intentionality. As such, a corresponding increase in responsibility assignment by observers was expected.

The order of the means confirmed this hypothesis (Table 2 and Figure 5). Observers held the actor more responsible for positive outcomes from association ($\bar{X} = 6.9\%$) to commission ($\bar{X} = 42.1\%$) to foreseeability ($\bar{X} = 67.6\%$) to justification ($\bar{X} = 72.4\%$) to intentionality ($\bar{X} = 86.0\%$).

In contrast to Hypothesis 1, Hypothesis 2 dealt with negative outcomes and stated a different ordering of the five levels of causality. For negative outcomes, the expectation was that responsibility assignment would increase from association to commission to foreseeability but then would drop at the level of justification followed by a substantial increase at the level of intentionality. The expected drop in responsibility assignment at the level of justification was based on the contention that the external coercive forces operating at this level detract substantially from the perceived contribution of the actor in the production of

negative outcomes. However, for positive outcomes, these external coercive forces were not expected to operate in a detracting manner. Thus, as stated in Hypothesis 1 for positive outcomes, observers' responsibility assignment was expected to be lower at the level of foreseeability than at the level of justification while for negative outcomes, as stated in Hypothesis 2, observers' responsibility assignment was expected to be greater at the level of foreseeability than at the level of justification.

The order of the means for negative outcomes supported Hypothesis 2 (Table 2 and Figure 5). Observers held the actor more responsible for negative outcomes from association ($\bar{X} = 6.6\%$) to commission ($\bar{X} = 10.4\%$) to foreseeability ($\bar{X} = 78.4\%$) followed by the expected drop at the level of justification ($\bar{X} = 53.9\%$) and then a substantial increase toward a maximum at the level of intentionality ($\bar{X} = 94.3\%$).

There were additional hypotheses pertaining to observers' assignment of responsibility. These hypotheses, namely Hypotheses 3 through 7, concerned the pattern of responsibility assignment as a function of outcome characteristics within each level of causality rather than across levels of causality. In general, Hypotheses 3-7 were based on the expectation that the effect of outcome characteristics on observers' responsibility assignment would change from level to level. That is, observers' assignment of responsibility for low to high positive outcomes and for low to high negative outcomes would

depend upon the level of causality as objectively depicted in the action situations. The results of the analysis of variance supported this expectation (Table 1). The results revealed a highly significant level x valence interaction, $F(4,361) = 11.96$, $p < .01$, and a highly significant level x valence x intensity interaction, $F(4,361) = 4.62$, $p < .01$. Therefore, observers' assignment of responsibility for outcomes of varying valence and intensity did depend upon the level of causality.

Before examining the resulting patterns of responsibility assignment, the conceptual framework underlying this examination will be briefly reviewed. Basically, the present study was designed to determine which levels of causality would yield a pattern of responsibility assignment that would conform to the pattern predicted from defensive attribution theory.

Defensive attribution theory predicts that observers' assignment of responsibility for any action sequence depends upon both the valence and intensity of the outcome. Thus, a review of the pattern of responsibility assignment predicted from defensive attribution theory is essential for understanding the discussion of the predicted and obtained results. First, with respect to the effect of outcome valence, observers are expected to hold actors more responsible for negative outcomes than for positive outcomes. Second, the expected effect of outcome intensity on observers' assignment of responsibility is different for positive and negative outcomes.

For negative outcomes, observers are expected to hold actors more responsible as these negative outcomes become more severe. That is, observers' assignment of responsibility is expected to be greater for high negative outcomes than for low negative outcomes.

In contrast to the predicted effect of intensity of negative outcomes, the predicted effect of intensity of positive outcomes is less clear. As positive outcomes become more favorable, the result could be either increased or decreased amounts of responsibility assignment. Either an increase or a decrease would support defensive attribution theory since these contradictory predictions correspond to the alternative formulations of defensive attribution theory proposed by Walster (1967) and Shaw and Skolnick (1971). Walster postulated that responsibility assignment would increase as positive outcomes became more favorable while Shaw and Skolnick predicted the opposite trend, i.e. responsibility assignment would decrease as positive outcomes became more favorable.

But the pattern of responsibility assignment predicted by defensive attribution theory was not expected at all five levels of causality since the nature of the interaction between the primary actor and the active environment is distinctly different at each level. It was precisely the unique nature of the interaction among causal agents as depicted in action situations at each level which was to determine the effect of outcome characteristics on observers'

responsibility assignment at each level. The nature of this interaction at each level was also expected to determine whether or not the resulting pattern of observers' responsibility assignment would conform to the predictions of defensive attribution theory. At some levels the nature of the causal interaction was expected to be interpreted by observers in such a way that would yield a pattern of responsibility assignment that would conform to that predicted by defensive attribution. At other levels though, the nature of the interaction was not expected to be interpreted in such a way that would yield a pattern of responsibility assignment conforming to that predicted by defensive attribution. Therefore, in examining the findings at different levels of causality, the differing nature of the interaction among causal agents was expected to result in different observed patterns of responsibility assignment. In turn, these patterns were to be comparable to the pattern expected from defensive attribution theory.

In relating the differences in the nature of the interaction among causal agents at each level to the observed pattern at each level and in turn, comparing the observed pattern at each level with the pattern predicted from defensive attribution theory, two categories of data were examined -- means and frequency distributions. The latter category of data (i.e. frequency distributions) is not presented at every level of causality. These distributions

supplemented the information represented by comparisons among the means and were presented when appropriate for elucidating the findings.

The first category of data was the mean amount of responsibility (AR) assigned by observers. Three individual orthogonal comparisons were conducted at each level of causality to determine the effect of outcome valence and intensity. Each comparison corresponded to a separate prediction of defensive attribution theory. The following comparisons were made at each level of causality: (1) the mean AR for positive outcomes was compared to the mean AR for negative outcomes; (2) the mean AR for low positive outcomes was compared to the mean AR for high positive outcomes; (3) the mean AR for low negative outcomes was compared to the mean AR for high negative outcomes. Thus, at each level of causality, comparison 1 represented the effect of outcome valence while comparisons 2 and 3 represented the effect of intensity of positive and negative outcomes.

The second category of data that was examined at each level was the frequency of observers whose individual pattern of responsibility assignment matched the pattern reflected by the means. For example, if the mean AR assigned by all 20 observers at a particular level was higher for positive outcomes than for negative outcomes, then the question was how many of the 20 observers showed the pattern reflected by the means. That is, "How many observers assigned more responsibility for positive outcomes than for negative outcomes

at that level?" Similarly, if the mean AR assigned by all 20 observers at a particular level was less for high positive outcomes than for low positive outcomes, then the question was "How many observers assigned less responsibility for high positive outcomes than for low positive outcomes at that level?" Likewise, the same question was asked regarding the intensity of negative outcomes.

Based on these questions, frequency distributions were constructed at each level of causality. First, for each individual observer at a particular level of causality, the mean AR for positive outcomes (two positive outcomes per level) was compared to the mean AR for negative outcomes (two negative outcomes per level). Each observer was then categorized as having a mean AR for positive outcomes greater than, equal to, or less than his mean AR for negative outcomes. Finally, a determination was made of the frequency of observers whose mean AR for positive outcomes was greater than, equal to, or less than that for negative outcomes. The resulting frequency distribution thus reflected the effect of outcome valence and similar frequency distributions were produced for each level of causality.

In constructing these distributions and the distributions described below, if the difference between means was less than 10%, then the amount of responsibility assigned for positive and negative outcomes was said to be "equal." That is, a difference of 10% or more was needed to declare "greater than" or "less than."

A similar procedure was used in producing frequency distributions to investigate the effect of intensity of outcomes at each level. For each individual observer at each level, the amount of responsibility assigned for the high positive outcome (one high positive outcome per level) was compared to the amount of responsibility assigned for the low positive outcome (one low positive outcome per level). After classifying each observer based on this comparison, a determination was then made of the frequency of observers whose amount of responsibility for the high positive outcome was greater than, equal to, or less than that for the low positive outcome based on a difference of 10%. Thus, these frequency distributions reflected the effect of intensity of positive outcomes at each level of causality.

Using the same method that was used for positive outcomes, a frequency distribution reflecting the effect of intensity of negative outcomes at each level was constructed. That is, a determination was made of the frequency of observers whose amount of responsibility for the high negative outcome at each level was greater than, equal to, or less than that for the low negative outcome at that level.

Hypothesis 3 concerned the effect of outcome characteristics at the level of association. At the level of association, observers' assignment of responsibility was expected to be minimal regardless of the nature of the final outcome. That is, the expectation was that responsibility assignment would not be affected by outcome characteristics at this

polar level of causality.

This expectation was based on the contention that in action situations at the level of association, the primary actor has nothing directly to do with the production of the final outcome. Since the actor's causal role in producing the final outcome is minimal or essentially zero in action situations at this level, the premise was that observers would have difficulty in perceiving or evaluating the actor as being responsible regardless of type of outcome. As such, there was no expectation that defensive attribution would operate at this level.

The findings at the level of association conformed to expectation (Tables 2-3 and Figures 5-6). At the level of association, observers' assignment of responsibility was near minimum irrespective of outcome characteristics. The overall mean AR at this level was 6.75%. Moreover, all comparisons among means -- positive versus negative outcomes (Table 2 and Figure 5), low versus high positive outcomes (Table 3 and Figure 6), and low versus high negative outcomes (Table 3 and Figure 6) -- were not significant at the .05 level.

In contrast to the level of association, outcome characteristics were expected to affect observers' assignment of responsibility at the level of commission. Observers' assignment of responsibility was expected to be affected by outcome characteristics at this level since the actor and the active environment more clearly share a causal role in producing the

Table 3

Mean amount of responsibility assigned by actors, observers, and actors with the self-awareness manipulation (SA actors) for low or high positive or negative outcomes at each level of causality: association (Level I), commission (Level II), foreseeability (Level III), justification (Level IV) and intentionality (Level V)

Role	Valence	Intensity	Level				
			I	II	III	IV	V
Actor	Positive	Low	6.8	41.9	72.3	71.0	74.0
		High	7.5	12.3	77.6	90.0	97.5
	Negative	Low	3.0	10.0	70.7	60.3	99.3
		High	6.3	33.2	89.8	50.3	96.5
Observer	Positive	Low	4.8	54.5	66.5	64.8	79.0
		High	9.1	29.8	68.8	80.0	93.0
	Negative	Low	5.3	7.0	68.5	58.0	94.8
		High	8.0	13.8	88.3	49.8	93.8
SA Actor	Positive	Low	2.8	55.8	76.5	83.2	85.5
		High	3.8	14.8	75.0	93.0	96.3
	Negative	Low	13.3	13.1	74.0	73.5	99.3
		High	1.3	18.0	87.8	65.0	96.0

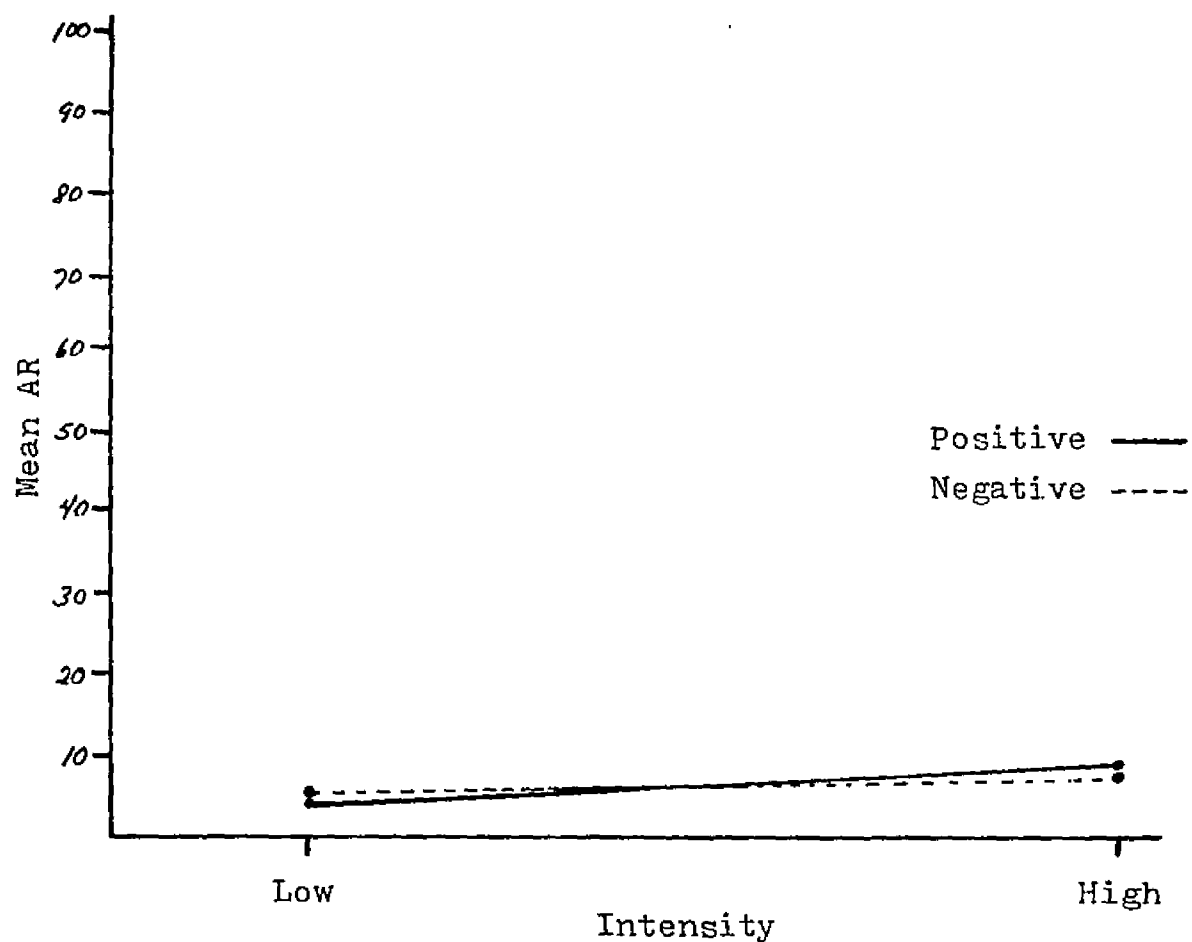


Figure 6. Mean amount of responsibility (AR) assigned by observers at the level of association depending upon outcome valence (positive, negative) and outcome intensity (low, high).

final outcome than at the level of association.

However, observers were not expected to interpret or evaluate the nature of the causal interaction between actor and active environment in such a way that would lead observers to assign responsibility implying the operation of defensive attribution. In fact, the pattern of responsibility assignment was expected to be the opposite of that predicted from defensive attribution as formulated by Shaw and Skolnick (1971). That is, observers were expected to hold the actor more responsible for positive outcomes than for negative outcomes. Moreover, while observers were expected to hold the actor more responsible as positive outcomes became more favorable, observers were expected to hold the actor less responsible as negative outcomes became more severe (Hypothesis 4).

Within the level of commission, it was predicted that observers would hold the actor more responsible for positive outcomes than for negative outcomes. This was expected because the information in action situations at this level not only indicates that the actor's behavior is justified relative to his intended goals but also indicates that the final outcome is the result of an uncontrollable and unforeseeable sequence of events. The nature of the actor's role is such that the actor justifiably or innocently acts in order to accomplish a particular outcome. However, the outcome which actually results is not intended by the actor since the actor's behavior merely sets in motion an unforeseeable and uncontrollable sequence of events which ends

with the final outcome.

The contention of Hypothesis 4 was that this information regarding the justifiability of the actor's behavior and the unforeseeability of the final outcome would not be conducive to the operation of defensive attribution. Instead, when the actor's behavior is justified, observers were expected to demonstrate a willingness to associate the actor with and give the actor more credit for positive outcomes than for negative outcomes, especially since these negative outcomes are unavoidable. This was expected even though the information indicates that the actor does not actually intend either type of outcome.

The findings supported expectations regarding the effect of outcome valence at the level of commission (Table 2 and Figure 5). Observers' assignment of responsibility for positive outcomes was significantly higher than that for negative outcomes, $F(1,361) = 36.0$, $p < .01$. The mean AR for positive outcomes was 42.1% while the mean AR for negative outcomes was 10.4%. Moreover, the frequency distributions at the level of commission revealed that none of the observers assigned more responsibility for negative outcomes than for positive outcomes. Therefore, as expected, the effect of outcome valence was opposite to that predicted by defensive attribution theory.

Similarly, with respect to the effect of intensity of positive and negative outcomes at the level of commission, the information regarding the justifiability of the actor's

behavior and the unforeseeability of the final outcome was not expected to be conducive to the operation of defensive attribution as formulated by Shaw and Skolnick (1971).

Instead, observers were expected to hold the actor more responsible as positive outcomes became more favorable but less responsible as negative outcomes became more severe (Hypothesis 4).

With respect to positive outcomes, the contention was that when information exists indicating that an actor's behavior is justified, observers would be willing to associate the actor with and hold the actor more responsible commensurate with outcome favorability. This was expected in spite of information indicating that the actor does not intend or foresee the consequences of his behavior.

However, contrary to expectation, observers did not hold the actor more responsible for the high positive outcome than for the low positive outcome. In fact, the opposite occurred (Table 3 and Figure 7). Observers held the actor less responsible as positive outcomes became more favorable. The results of comparing the mean AR for the high positive outcome ($\bar{X} = 29.8\%$) with the mean AR for the low positive outcome ($\bar{X} = 54.5\%$) revealed a highly significant decrease as positive outcomes became more favorable, $F(1,361) = 10.9, p < .01$. Moreover, most individual observers exhibited the same pattern reflected by the means. The majority of the observers (70%) assigned less responsibility

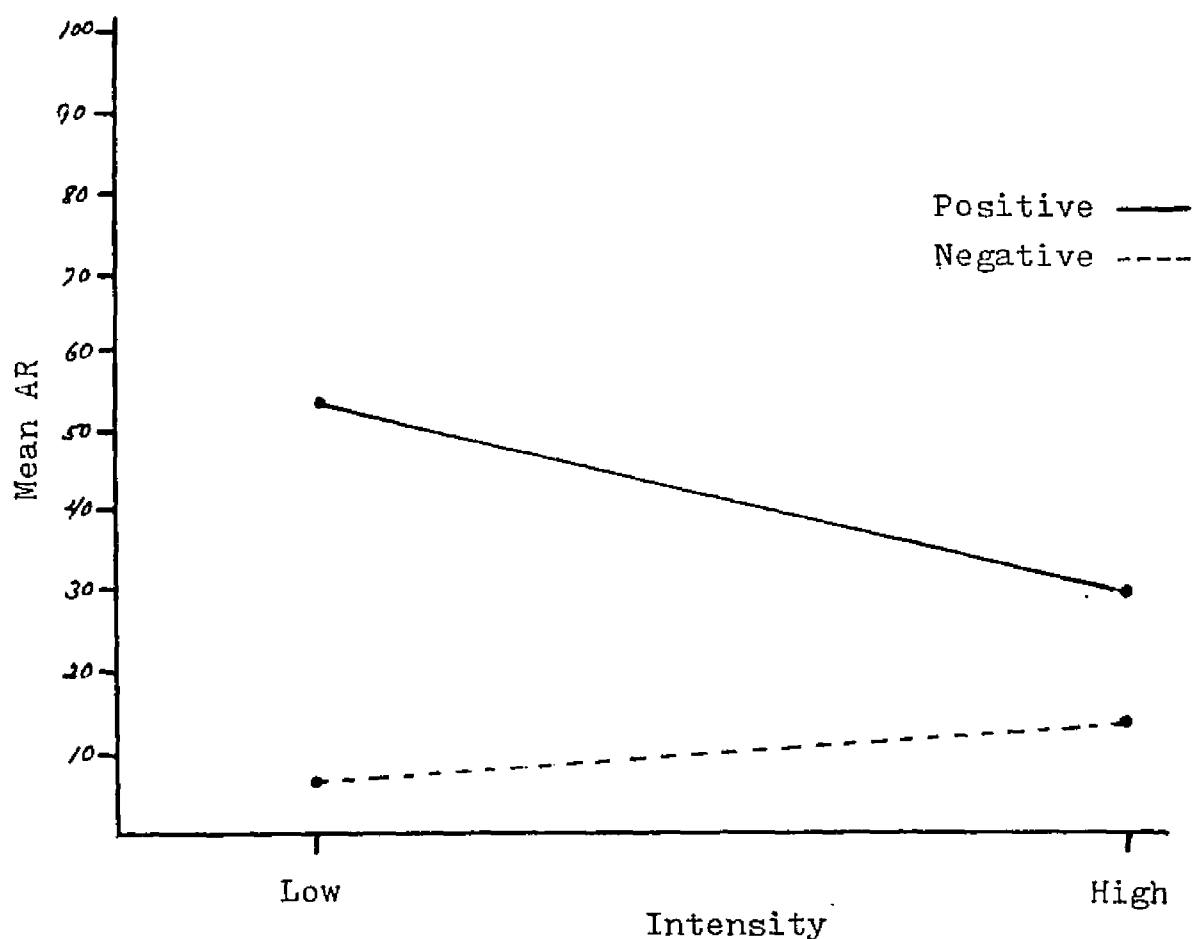


Figure 7. Mean amount of responsibility (AR) assigned by observers at the level of commission depending upon outcome valence (positive, negative) and outcome intensity (low, high).

for the high positive outcome than for the low positive outcome while only 20% assigned more responsibility and 10% assigned an equal amount of responsibility as positive outcomes became more favorable.

While observers were expected to hold the actor more responsible as positive outcomes became more favorable, observers were expected to hold the actor less responsible as negative outcomes became more severe (Hypothesis 4). This expected pattern was based on the notion that observers would not be willing to associate the actor with and hold the actor responsible for negative outcomes which are unavoidable, especially when these negative outcomes are severe.

Again, results did not conform to expectation (Table 3 and Figure 7). Contrary to expectation, there appeared to be a slight tendency on the part of observers to hold the actor more responsible as negative outcomes became more severe. The mean AR for the low negative outcome was 7.0% while the mean AR for the high negative outcome was 13.8%. However, the difference between these means was not significant at the .05 level, $F(1,361) = 0.83$. Moreover, contrary to expectation, the frequency distribution at this level revealed that only a few observers (10%) assigned less responsibility as negative outcomes became more severe. Of the remaining observers, 35% assigned more responsibility and 55% assigned an equal amount of responsibility as negative outcomes became more severe. Thus, action situations at the level of commission appeared to be at least partially conducive to observers holding the

actor more responsible for the more severe negative outcome even though the negative outcome is objectively depicted as being unavoidable.

However, even though the pattern in the means for low to high negative outcomes was contradictory to Hypothesis 4, this trend as a function of severity of negative outcomes should not be taken too literally. The mean AR for both the low negative outcome and the high negative outcome tended to be rather minimal and these means were not significantly different. Therefore, these results were consistent with the proposition in Hypothesis 4 that observers do not hold actors responsible for negative outcomes which cannot be avoided regardless of the severity of these negative outcomes.

Even though an equivocal interpretation was suggested regarding the effect of severity of negative outcomes, the obtained results indicated that at the level of commission, observers hold actors less responsible as positive outcomes become more favorable but somewhat more responsible as negative outcomes become more severe. Thus, the overall pattern as a function of outcome intensity which was observed at this level approximated that predicted from defensive attribution theory as formulated by Shaw and Skolnick (1971).

At the level of foreseeability, like at the level of commission, outcome characteristics were expected to affect observers' assignment of responsibility. However, unlike at the level of commission, the pattern of responsibility assignment at the level of foreseeability was expected to conform

to the pattern based on defensive attribution theory. The pattern was expected to match the predictions from defensive attribution theory since action situations at this level were conceptualized as being highly ambiguous relative to the justifiability of the actor's behavior and the foreseeability of the final outcome. In action situations at this level, the information does not clearly indicate whether or not the actor anticipates or foresees the consequences of his behavior and whether or not the actor's behavior is justifiable. However, the information does indicate that the final outcome is at least under the potential control of the actor. Mainly because the foreseeability of the outcome is not explicit in action situations at this level, the ambiguous nature of the actor's role was expected to be conducive to subjective interpretation on the part of observers and, as such, the operation of defensive attribution was likely.

Based on the contention that defensive attribution would be operative at this level, it was predicted that observers would hold the actor more responsible for negative outcomes which could have been avoided than for positive outcomes which may or may not have been expected or anticipated by the primary actor. Moreover, since the negative outcomes could be interpreted by observers as preventable, observers were expected to attribute greater responsibility to the actor as these avoidable negative outcomes became more severe (Hypothesis 5).

The findings revealed a pattern of responsibility assignment which seemed to support these expectations. Observers held the actor more responsible for negative outcomes than for positive outcomes (Table 2 and Figure 5). The mean AR assigned by observers for negative outcomes ($\bar{X} = 78.4\%$) was higher than that for positive outcomes ($\bar{X} = 67.6\%$). However, the difference was not significant at the .05 level, $F(1,361) = 2.1$. But as predicted, observers held the actor significantly more responsible as negative outcomes became more severe (Table 3 and Figure 8). The mean AR for the high negative outcome was 88.3% while the mean AR for the low negative outcome was 68.5%. This difference was highly significant, $F(1,361) = 7.02$, $p < .01$. Thus, even though the difference between the mean AR for negative outcomes and the mean AR for positive outcomes was not significant, the overall pattern of responsibility assignment as a function of outcome valence and severity of negative outcomes conformed to the pattern expected on the basis of defensive attribution theory.

Regarding the effect of intensity of positive outcomes, the predictions derived from defensive attribution theory is somewhat unclear. The confusion arises because of the two alternative formulations of defensive attribution theory proposed by Walster (1967) and Shaw and Skolnick (1971). Walster predicted an increase while Shaw and Skolnick predicted a decrease in responsibility assignment as positive outcomes became more favorable. Moreover, the research of

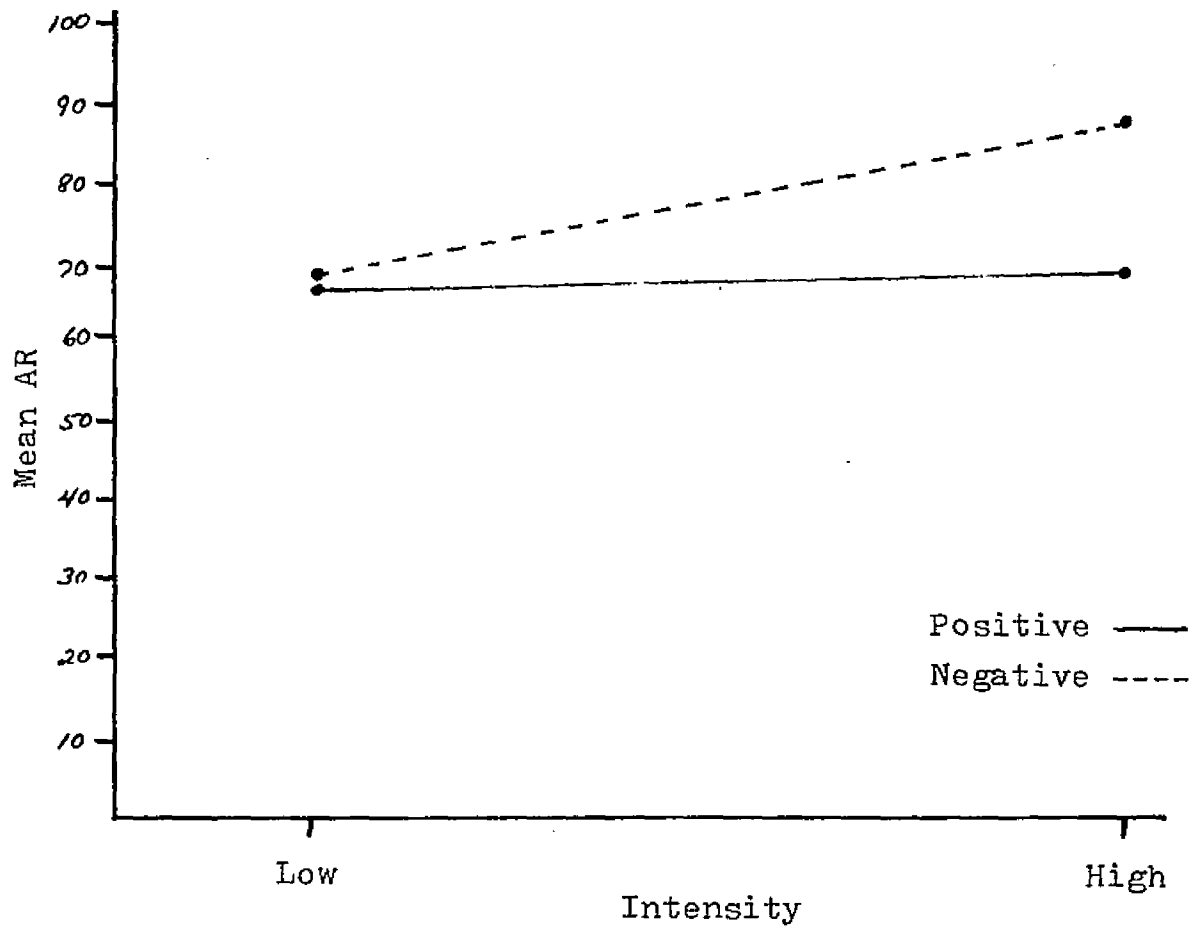


Figure 8. Mean amount of responsibility (AR) assigned by observers at the level of foreseeability depending upon outcome valence (positive, negative) and outcome intensity (low, high).

Shaw and his associates on levels of causality yielded results which supported both predictions. Walster's 1967 formulation of defensive attribution received substantial support in the work of Shaw and his associates and as such, Hypothesis 11 predicted that observers would be willing to give the actor more credit as positive outcomes became more favorable.

The mean amount of responsibility assigned by observers in the present study did not conform to predictions of either formulation of defensive attribution. Observers' assignment of responsibility did not appear to be affected by the intensity of positive outcomes (Table 3 and Figure 8). The mean AR for the low positive outcome was 66.5% while the mean AR for the high positive outcome was 68.8%.

The same lack of evidence for a systematic effect of intensity of positive outcomes was found with regard to the frequency of observers whose individual pattern of responsibility assignment increased, decreased, or remained the same as a function of outcome favorability. The number of observers whose assignment of responsibility increased (35%), decreased (40%), or remained the same (25%) was rather equally distributed. The fact that some observers showed an increase, some showed a decrease, and others showed no change suggests that the nature of the actor's role in producing the positive outcomes was interpreted in a variety of ways.

Although this variety in the patterns was in keeping with the ambiguous nature of the information in action situations at this level, similar evidence for a variable

interpretation on the part of observers was not indicated for severity of negative outcomes. The majority of observers (65%) assigned more responsibility as negative outcomes became more severe while 25% assigned less and 15% assigned the same amount of responsibility as negative outcomes became more severe. Thus, it appears that a more consistent response in observers' assignment of responsibility occurs in action situations at this level when negative outcomes increase in severity than when positive outcomes increase in favorability.

At the level of justification, observers' assignment of responsibility was expected to be affected by outcome characteristics, both valence and intensity. However, while the pattern of responsibility assignment as a function of outcome valence was not expected to conform to expectations from defensive attribution theory, the pattern of results for intensity of positive and negative outcomes was expected to conform to predictions of defensive attribution theory.

With respect to the effect of outcome valence, the pattern within the level of justification was expected to be opposite to that predicted by defensive attribution theory. Hypothesis 6 predicted that observers would hold the actor more responsible for positive outcomes than for negative outcomes because of the operation of external coercive forces in action situations at this level. This expectation was based on the proposition that the impact of external coercion is interpreted differently for negative outcomes than for

positive outcomes. Actors are less likely to be held responsible for negative outcomes resulting from behavior produced under conditions of external coercion than for positive outcomes resulting from actions consistent with external coercive forces directed toward the production of beneficial outcomes.

The findings supported this expectation. Observers held the actor more responsible for positive outcomes ($\bar{X} = 72.4\%$) than for negative outcomes ($\bar{X} = 53.9\%$) at the level of justification (Table 2 and Figure 5). This difference was significant at the .01 level, $F(1,361) = 12.3$.

With respect to the effect of intensity of positive and negative outcomes, observers were expected to hold the actor more responsible as both positive and negative outcomes became more intense (Hypothesis 6). This prediction was based on the fact that in action situations at this level, the actor foresees the consequences of his actions. Because of the apparent foreseeability of the consequences of his actions, observers were expected to hold the actor more responsible as outcomes became more extreme in spite of the fact that external coercion facilitated the actor's behavior. This prediction was also consistent with the pattern predicted from defensive attribution theory as formulated by Walster (1967).

The findings supported the above expectation with respect to the intensity of positive outcomes but not with respect to the intensity of negative outcomes (Table 3 and Figure 9).

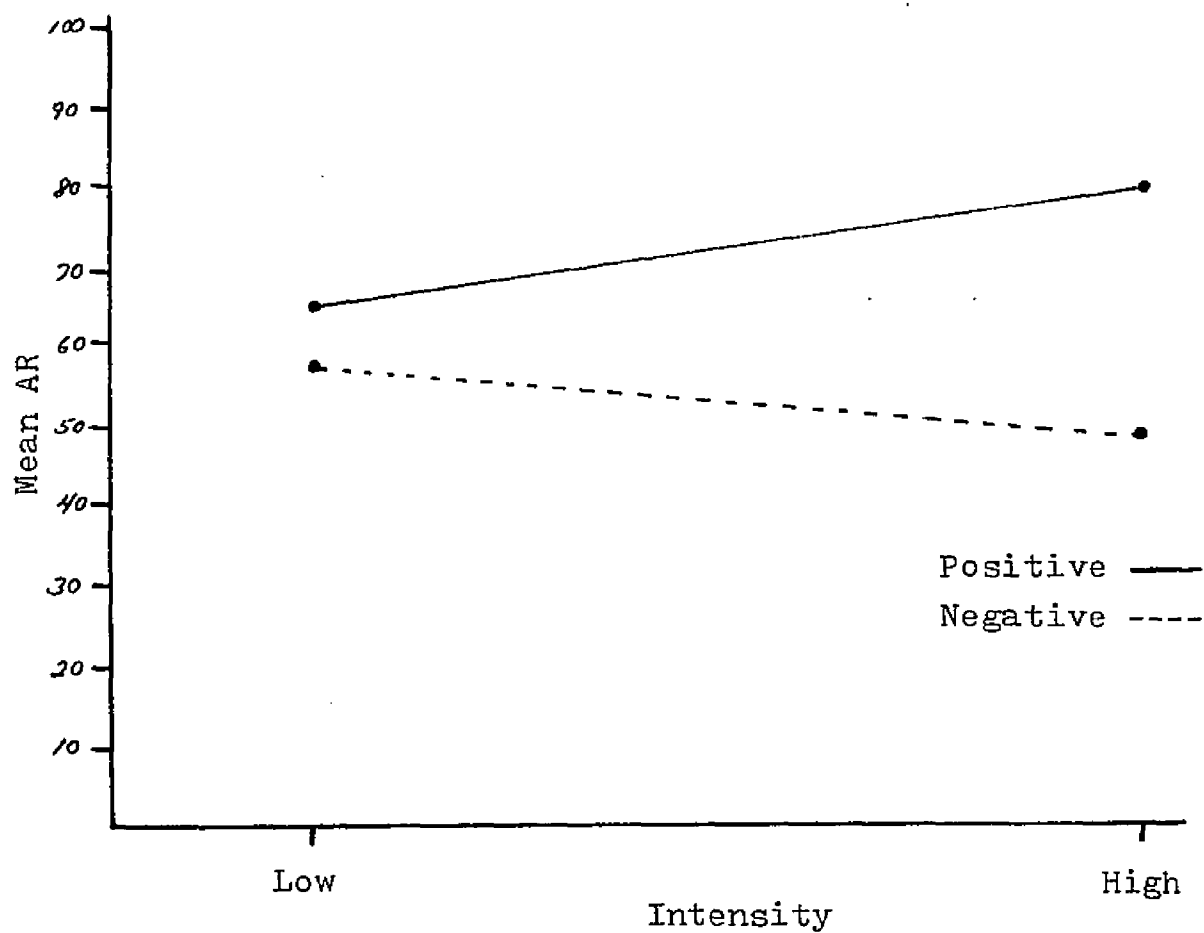


Figure 9. Mean amount of responsibility (AR) assigned by observers at the level of justification depending upon outcome valence (positive, negative) and outcome intensity (low, high).

Observers held the actor significantly more responsible for the high positive outcome ($\bar{X} = 80.0\%$) than for the low positive outcome ($\bar{X} = 64.8\%$). This difference was significant at the .05 level, $F(1,361) = 4.14$. Contrary to expectation regarding negative outcomes, observers held the actor less responsible as negative outcomes became more severe, but this difference was not significant at the .05 level, $F(1,361) = 1.2$. The mean AR for the low negative outcome was 58.0% while the mean AR for the high negative outcome was 49.8%. Though not predicted, this decreasing trend suggests that when external coercive forces exist, they operate in a detracting manner and as such, observers hold the actor less responsible as negative outcomes become more severe.

Finally, Hypothesis 7 concerned the level of intentionality. At the level of intentionality, observers' assignment of responsibility was expected to be maximal regardless of the nature of the final outcome. In action situations at the level of intentionality, the primary actor is portrayed as the sole causal agent in the production of the final outcome. Since the causal role of the actor is maximal, the assignment of responsibility was expected to be maximal and unaffected by outcome characteristics at this level. Therefore, no evidence for defensive attribution was expected.

The findings revealed that observers' assignment of responsibility was equivalent and near maximum for all types

of outcomes except low positive outcomes (Tables 2-3 and Figures 5 and 10). The mean AR for low and high negative outcomes was 94.8% and 93.8%, respectively. The mean AR for the high positive outcome was also near maximum ($\bar{X} = 93.0\%$), but the mean AR for the low positive outcome was less than for other types of outcomes ($\bar{X} = 79.0\%$). Thus, while responsibility assignment tended to be maximal and not change as a function of the severity of negative outcomes, responsibility assignment did tend to increase as positive outcomes became more favorable. The increase from low to high positive outcomes was quite close to significance at the .05 level, $F(1,361) = 3.5$. As a result, responsibility assignment was higher, but not significantly higher, for negative outcomes ($\bar{X} = 94.3\%$) than for positive outcomes ($\bar{X} = 86.0\%$). The difference was not significant at the .05 level, $F(1,361) = 1.2$.

Even though the effect of intensity of positive outcomes was not quite significant, the trend which showed an increase from low to high positive outcomes was contrary to expectation. On the other hand, the fact that responsibility assignment was less for low positive outcomes than other types of outcomes was similar to results found by Sulzer (1964). These findings suggest that since the actor must overcome inhibitory forces in order to accomplish a beneficial outcome, observers perceive the actor as more influential and more responsible for circumventing forces prohibiting the production of the highly favorable outcome than for circumventing forces prohibiting the production of the less favorable positive outcome.

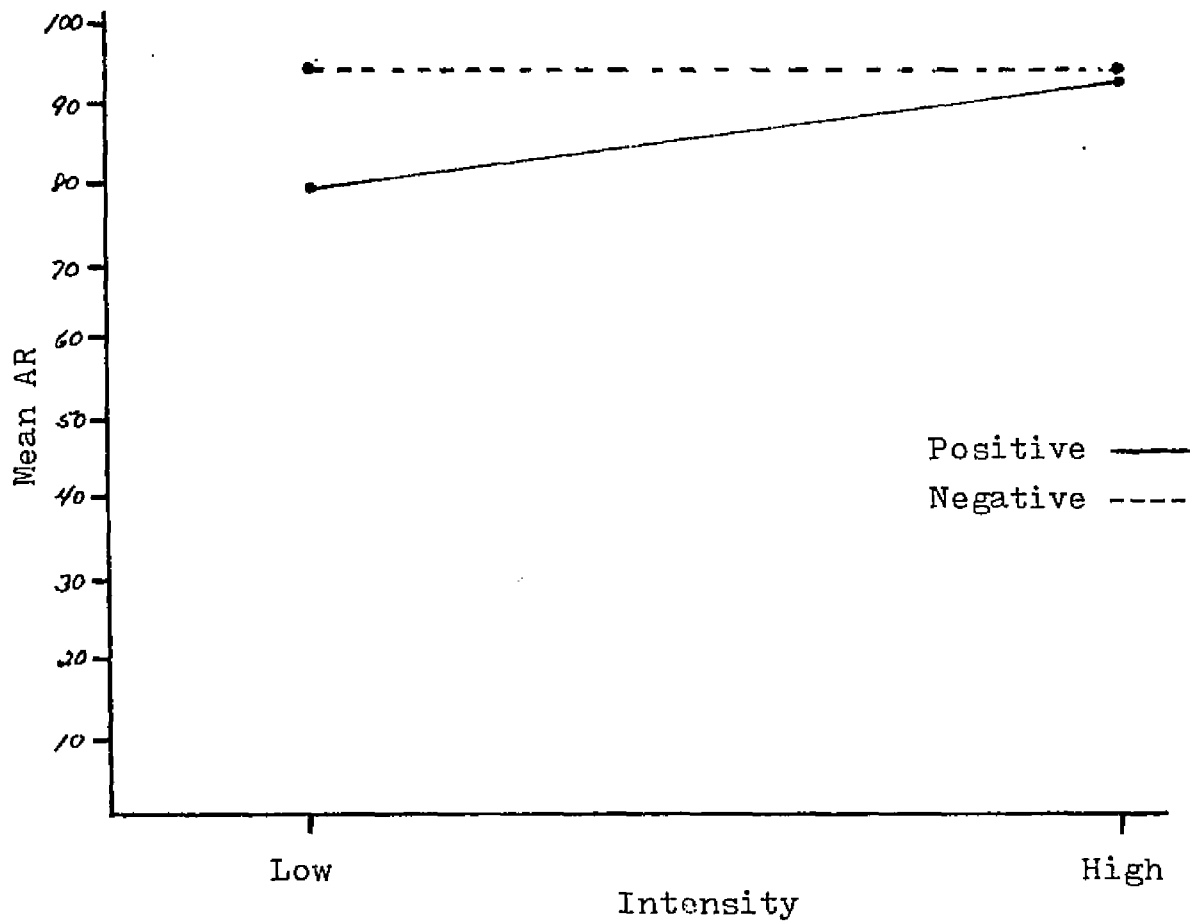


Figure 10. Mean amount of responsibility (AR) assigned by observers at the level of intentionality depending upon outcome valence (positive, negative) and outcome intensity (low, high).

The discussion of findings related to the hypotheses pertaining to observers' assignment of responsibility has been concluded. The remainder of this section deals with six additional hypotheses (Hypotheses 8-13) which dealt exclusively with actor-observer differences in responsibility assignment. Along with the observer subjects, two groups of actors were employed -- actors without the self-awareness (SA) manipulation and actors with the SA manipulation. In this discussion of the results, these three subject groups will be referred to as observers, actors, and SA actors, respectively.

Hypotheses 8-13 dealt with actor-observer differences in responsibility assignment as a function of the five levels of causality as well as the valence and intensity of the final outcomes. The objective was to compare the patterns of responsibility assignment as a function of outcome characteristics demonstrated by the three subject groups both across the five levels of causality and within these levels. The amount of responsibility assigned across and within levels as a function of outcome valence and intensity was expected to depend upon the role of subjects as actors or observers. Expected differences were based on the theory of defensive attribution and the corresponding notion of self-interest as well as the theory of objective self-awareness.

The overall claim of Hypotheses 8-13 was that observers, actors, and SA actors would demonstrate differing patterns of responsibility assignment as a function of level and

outcome characteristics. To investigate these hypotheses, an analysis of variance was conducted using data obtained from observers, actors, and SA actors. The dependent variable was the amount of responsibility assigned by each actor or observer for the final outcome in each action situation. The results of this analysis of variance are given in Table 4.

The results of the analysis of variance did not support the claims of Hypotheses 8 through 13. Since Hypotheses 8 through 13 predicted that assignment of responsibility as a function of level and outcome characteristics would depend upon subject role, three sources of variability were expected to be significant -- the role x valence interaction, the role x level x valence interaction, and the role x level x valence x intensity interaction. None of these interactions were significant (Table 4). Only the role x level x valence interaction approached significance at the .05 level, $F(8,1083) = 1.93$. Therefore, there was very little evidence that actors and observers differed in their assignment of responsibility as a function of level of causality and outcome characteristics.

Instead, the mean AR assigned for low to high positive or negative outcomes indicated that both groups of actors exhibited the same patterns of responsibility assignment exhibited by observers, both across levels and within levels (Tables 2-3 and Figures 11-16). Figure 11 shows the pattern

Table 4

Analysis of variance for the amount of responsibility (AR)
assigned by actors, observers, and actors with the
self-awareness manipulation

Source	df	SS	MS	F
Role (R)	2	4193.52	2096.76	3.21 *
error a	57	37178.03	652.25	
Level (L)	4	1278721.07	319680.27	602.22 **
Valence (V)	1	6547.34	6547.34	12.44 **
Intensity (I)	1	1065.97	1065.97	2.02
L x V	4	49096.60	12274.15	23.31 **
L x I	4	14112.65	3528.16	6.70 **
V x I	1	497.94	497.94	0.95
L x V x I	4	45041.21	11260.30	21.39 **
R x L	8	8225.49	1028.19	1.95 *
R x V	2	495.78	247.89	0.47
R x I	2	3236.20	1618.10	3.07 *
R x L x V	8	8143.72	1017.97	1.93
R x L x I	8	934.92	116.87	0.22
R x V x I	2	24.72	12.36	0.02
R x L x V x I	8	2588.51	323.56	0.61
error b	1083	570159.42	526.46	
total	1199	2030263.10		

* $p < .05$

** $p < .01$

of responsibility assignment by the three subject groups for positive and negative outcomes across the five levels of causality. The means presented in Figure 11 are given in Table 2. Figures 12-16 show the pattern of responsibility assignment for low to high positive and negative outcomes by each subject group at each level of causality. The means presented in Figures 12-16 are given in Table 3.

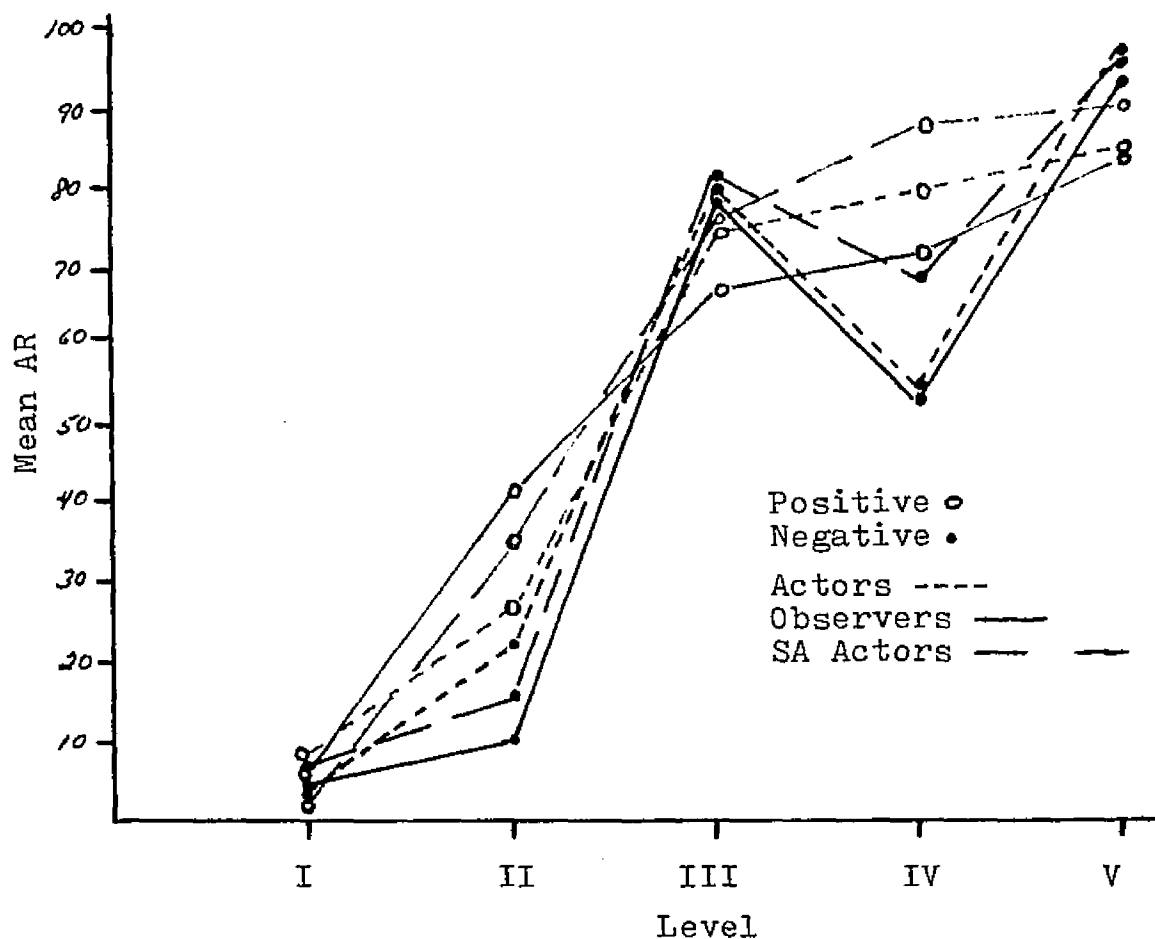


Figure 11. Mean amount of responsibility (AR) assigned by actors, observers, and actors with the self-awareness manipulation (SA actors) for positive and negative outcomes at each level of causality: association (I), commission (II), foreseeability (III), justification (IV), and intentionality (V).

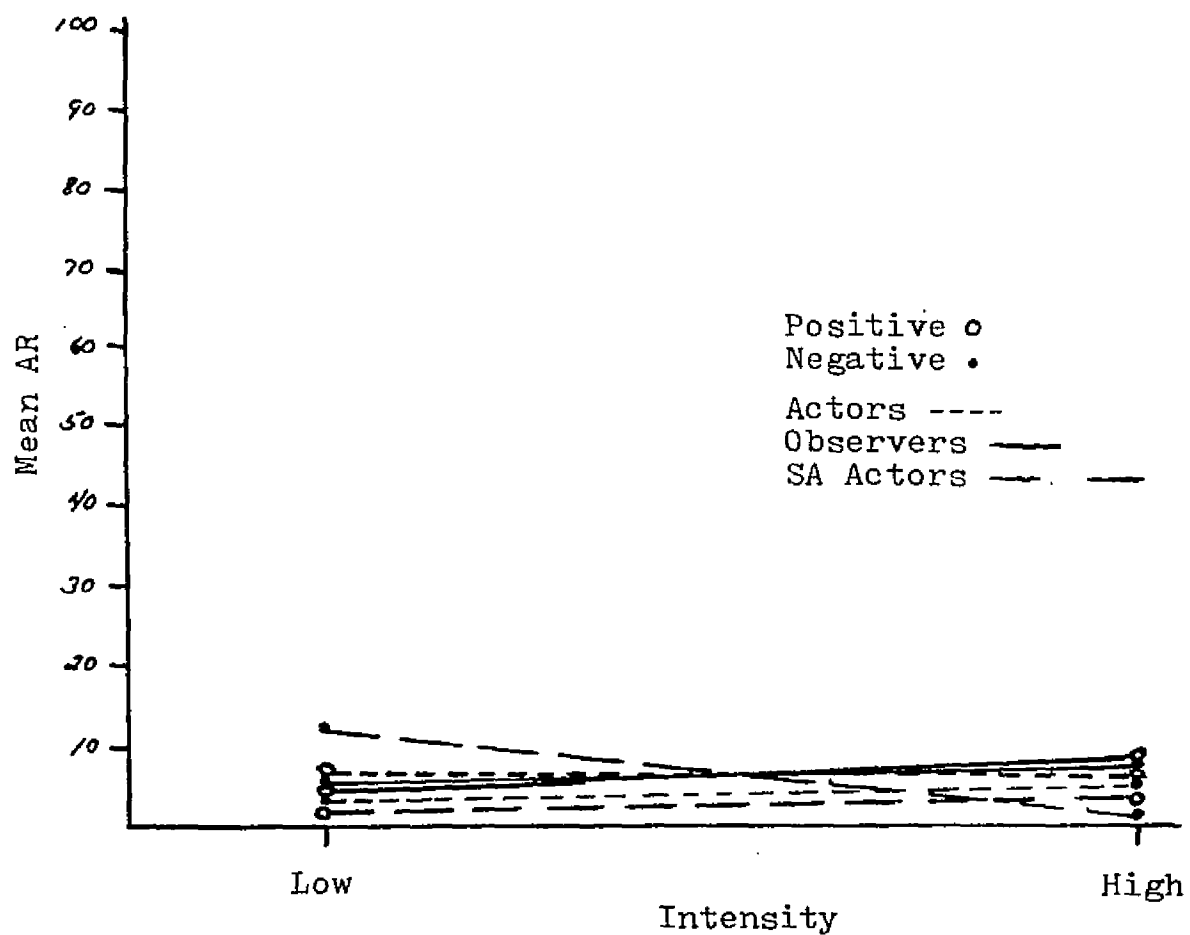


Figure 12. Mean amount of responsibility (AR) assigned by actors, observers, and actors with the self-awareness manipulation (SA actors) at the level of association depending upon outcome valence (positive, negative) and outcome intensity (low, high).

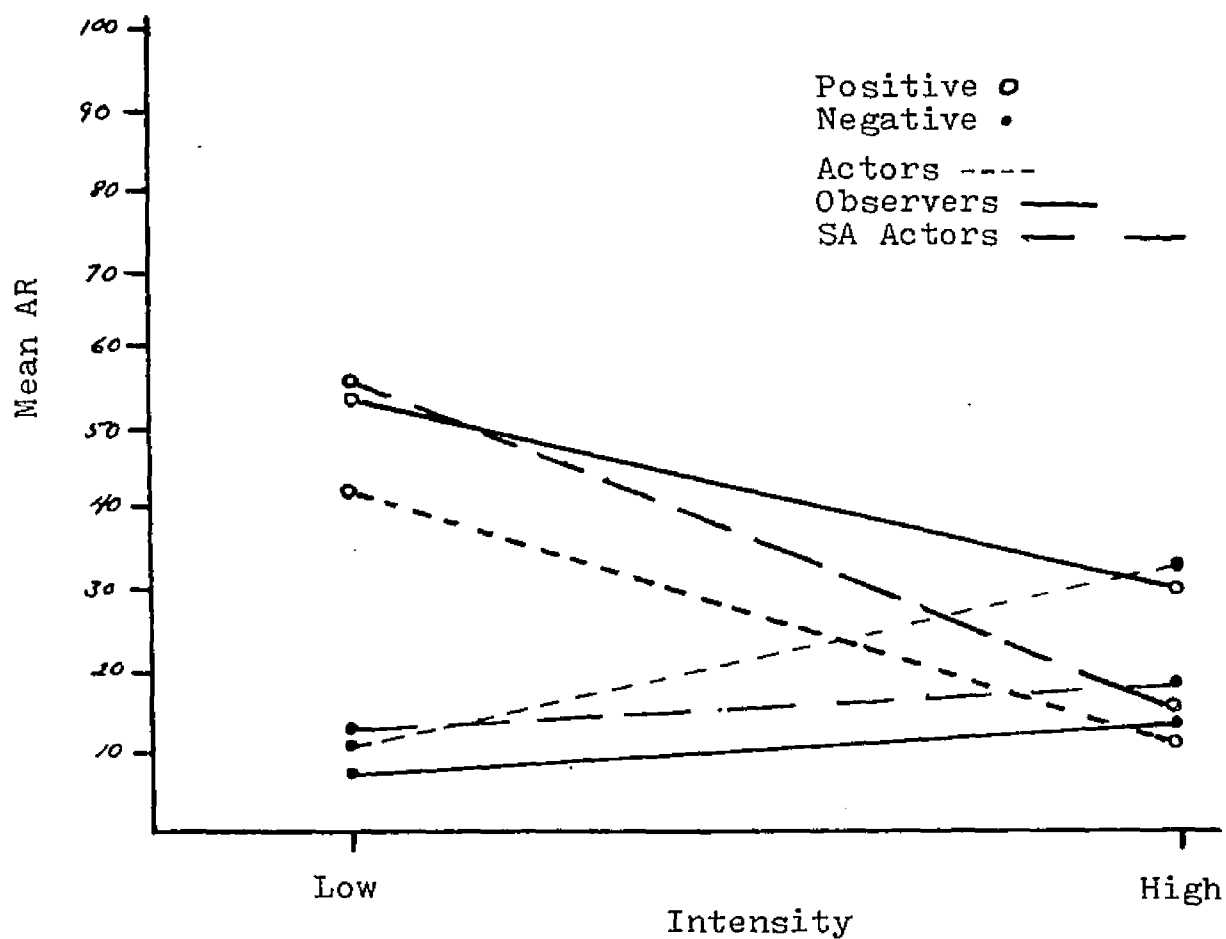


Figure 13. Mean amount of responsibility (AR) assigned by actors, observers, and actors with the self-awareness manipulation (SA actors) at the level of commission depending upon outcome valence (positive, negative) and outcome intensity (low, high).

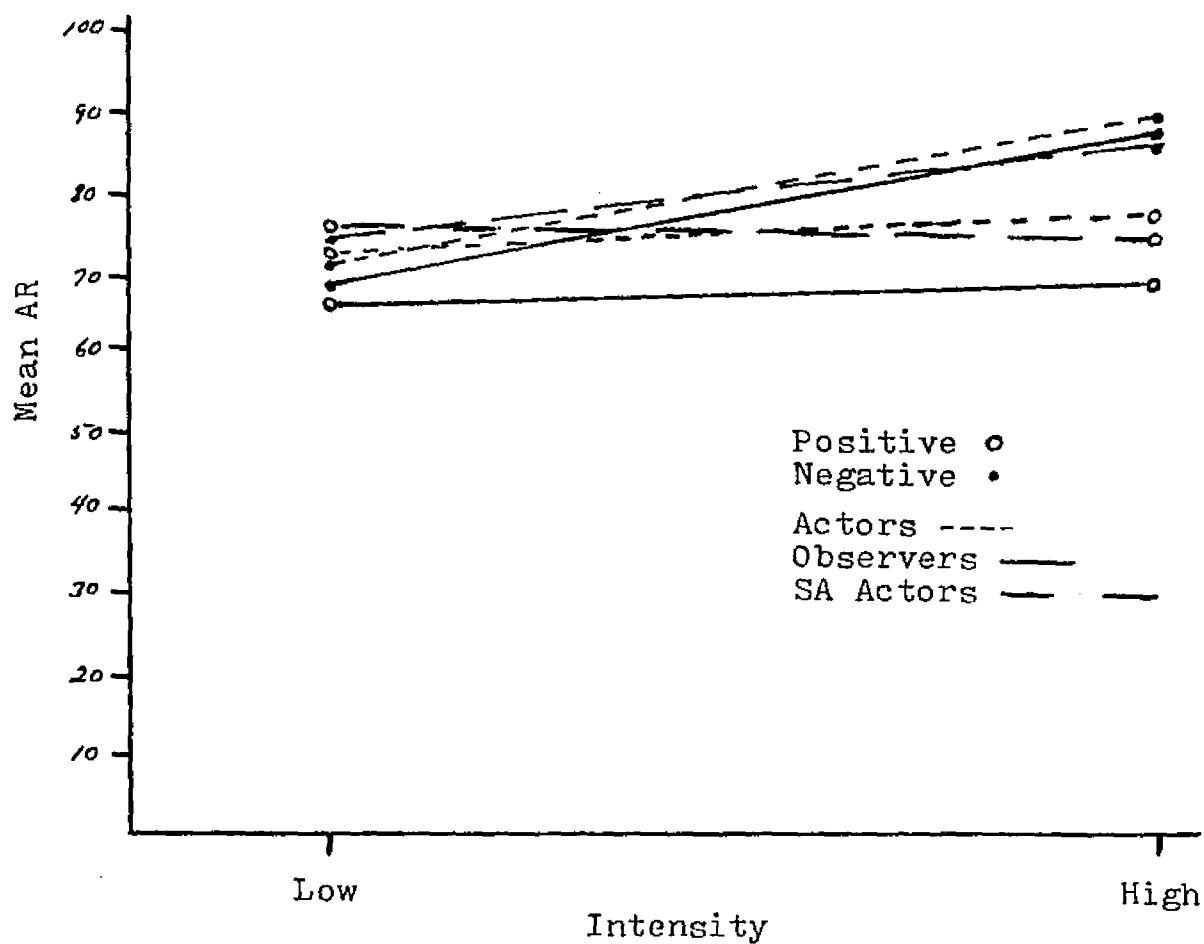


Figure 14. Mean amount of responsibility (AR) assigned by actors, observers, and actors with the self-awareness manipulation (SA actors) at the level of foreseeability depending upon outcome valence (positive, negative) and outcome intensity (low, high).

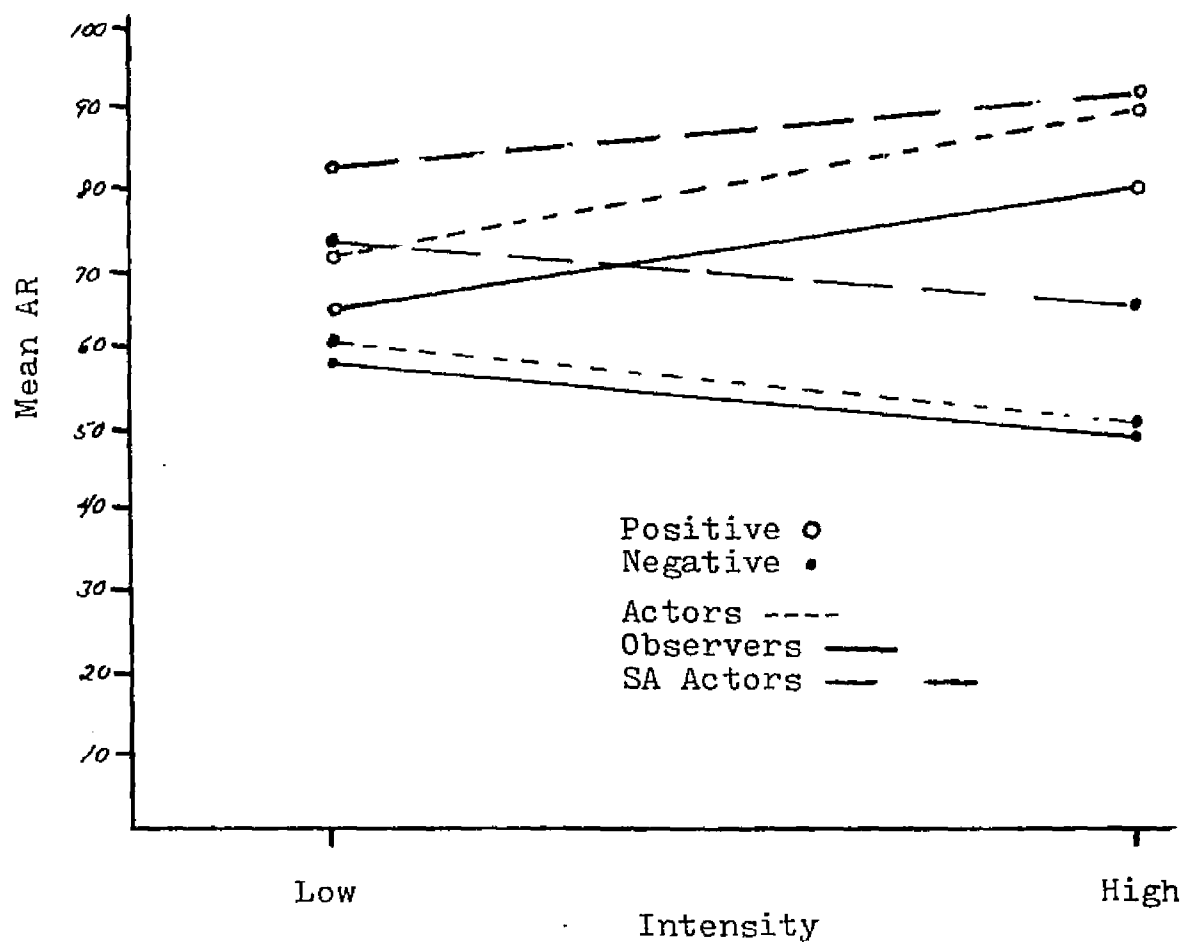


Figure 15. Mean amount of responsibility (AR) assigned by actors, observers, and actors with the self-awareness manipulation (SA actors) at the level of justification depending upon outcome valence (positive, negative) and outcome intensity (low, high).

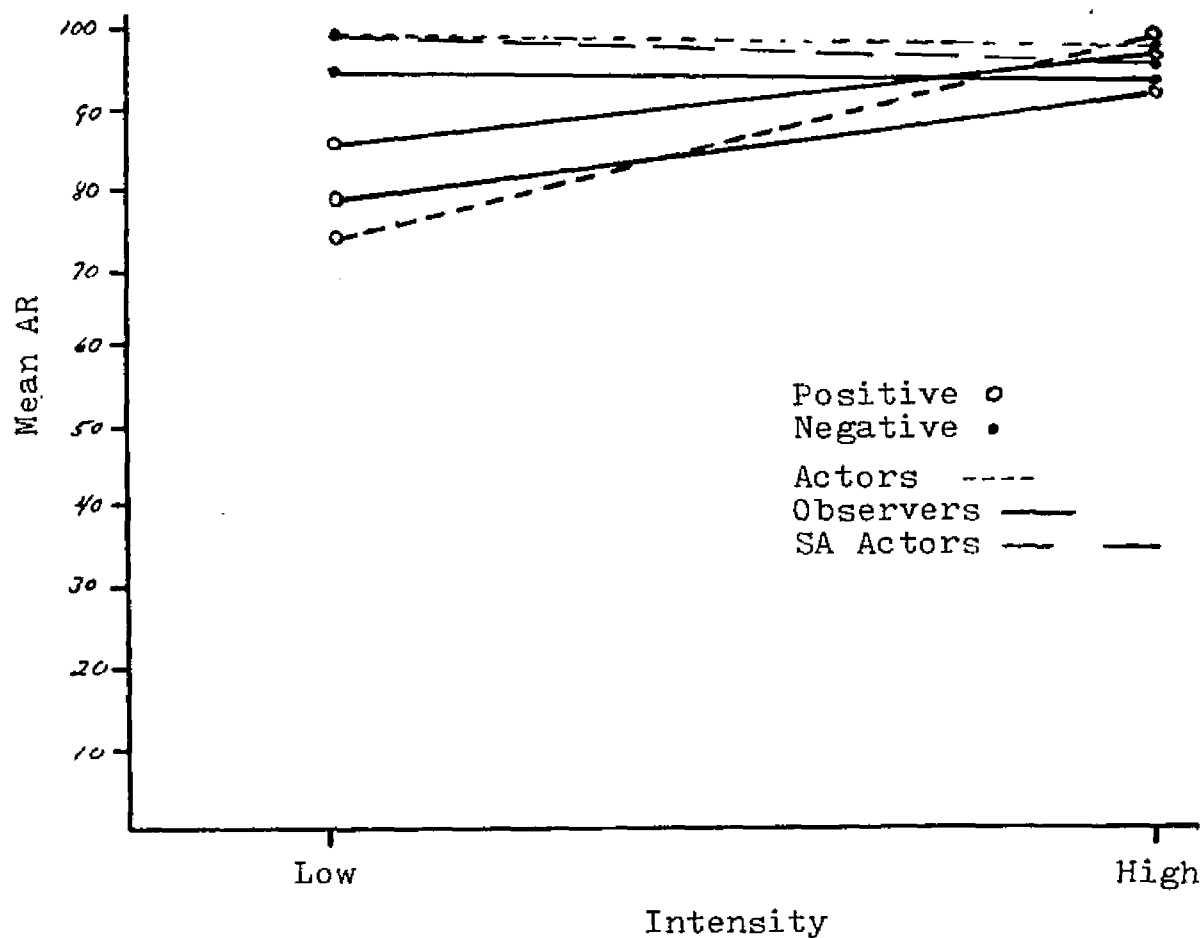


Figure 16. Mean amount of responsibility (AR) assigned by actors, observers, and actors with the self-awareness manipulation (SA actors) at the level of intentionality depending upon outcome valence (positive, negative) and outcome intensity (low, high).

GENERAL DISCUSSION

The findings related to observers' assignment of responsibility demonstrated that observers' responsibility assignment as a function of outcome characteristics (valence and intensity) depended upon the level of causality as objectively depicted in action situations. The observed pattern of results for observers' responsibility assignment at each level can be examined from two related points of view.

First, each level can be examined by comparing the results obtained at each level to predictions of defensive attribution theory. Second, distinctions between levels in terms of the nature of the interaction among causal agents (i.e. actor and active environment) can be related to the different patterns that observed over levels. The distinctions among the levels were actually the basis for predictions regarding observers' patterns of responsibility assignment as a function of outcome characteristics across as well as within levels. Also, these distinctions among the levels define the conditions which determine where and to what degree defensive attribution is likely to occur. Therefore, these two points of view are related since they both depend upon definitional differences among levels in the nature of the interaction among causal agents.

From the first point of view, that is, levels at which defensive attribution theory seems applicable, the observed patterns revealed the following. At the polar levels of

causality (association and intentionality), the effect of outcome characteristics tended to be minimal. Since differential effects due to outcome characteristics are necessary to support its predictions, defensive attribution did not appear to be applicable at these levels. At the level of association, there was no indication of an effect for both outcome valence and outcome intensity. At the level of intentionality, observers' assignment of responsibility was near maximum for all types of outcomes except low positive outcomes.

In contrast to the polar levels, outcome characteristics did have an effect on observers' assignment of responsibility at the three intermediate levels of causality (commission, foreseeability, justification). However, the degree to which the pattern matched predictions from defensive attribution theory varied from level to level. Evidence for defensive attribution theory was found at the level of foreseeability and to some extent at the level of commission. But evidence against the defensive attribution process was found at the level of justification.

At the level of justification, the pattern was opposite to that predicted from the defensive attribution theory of Shaw and Skolnick (1971). Observers held the actor more responsible for positive outcomes than for negative outcomes, more responsible as positive outcomes became more favorable, and less responsible as negative outcomes became more severe.

At the level of commission, the observed pattern only approximated the predictions of defensive attribution theory (Shaw and Skolnick, 1971) with respect to the effect of intensity of positive and negative outcomes. But with respect to the effect of outcome valence, the results were opposite to predictions derived from defensive attribution theory. As to the effect of outcome valence, observers held the actor more responsible for positive outcomes than for negative outcomes, thereby contradicting the applicability of defensive attribution. For outcome intensity, observers held the actor less responsible as positive outcomes became more favorable, but only slightly more responsible as negative outcomes became more severe, thereby approaching the pattern predicted by Shaw and Skolnick.

Finally, at the level of foreseeability, the observed pattern came close to matching the pattern predicted by Shaw and Skolnick. Observers held the actor more responsible for negative outcomes than for positive outcomes and more responsible as negative outcomes became more severe. However, since observers' assignment of responsibility appeared to be unaffected by the favorability of positive outcomes, at least a portion of these results failed to support defensive attribution (Walster, 1967; Shaw and Skolnick, 1971).

From the second point of view, namely the relationships between the conceptual distinctions among levels and the observed patterns, the distinctions among levels accounted rather well for the effect of outcome valence across and

within levels, but less well for the effect of outcome intensity within levels.

With respect to the effect of outcome valence across levels, observers' assignment of responsibility for positive outcomes was found to increase from association to commission to foreseeability to justification to intentionality. This increase in responsibility assignment across levels was expected because the relative influence of the actor in producing positive outcomes objectively increases from association to commission to foreseeability to justification to intentionality. In contrast for negative outcomes, observers' assignment of responsibility was found to increase from association to commission to foreseeability followed by a drop at the level of justification and then another substantial increase at the level of intentionality. This deviation from the pattern obtained for positive outcomes was predicted because of the effect of coercive forces at the level of justification. External coercion operative at the level of justification detracts from the perceived contribution of the actor when his behavior results in negative outcomes but not when his behavior results in positive outcomes.

With respect to the effect of outcome valence within levels, outcome valence was not expected to have an effect at the polar levels of causality (association, intentionality), but was expected to have an effect at the three intermediate levels of causality (commission, foreseeability, justification). This was expected because at the polar levels, the actor and

the active environment do not share a causal role in producing the final outcomes while at the three intermediate levels, the actor and the active environment do share a causal role. As such, observers' attributions of causality and assignment of responsibility to the actor are more subject to individual interpretation and more likely to be affected by the nature of the final outcome at the intermediate levels.

As expected, the results indicated that outcome valence did not have an effect at the polar levels of association and intentionality, but did affect observers' assignment of responsibility at the three intermediate levels. At the levels of commission and justification, observers held the actor more responsible for positive outcomes than for negative outcomes. The explanation for these results was based on the fact that the actor's behavior is justified at these levels, even though for different reasons. At the level of commission, the actor justifiably or innocently acts in order to accomplish a particular outcome. But the outcome which actually does result is different from the actor's intended outcome because of an uncontrollable and unforeseeable sequence of events set in motion by the actor's behavior. In contrast, at the level of justification, the actor's behavior is justified due to the operation of external coercion directed toward the production of the final outcome. When an actor's behavior is justified as at the levels of commission and justification, observers are not likely to blame actors or hold actors responsible for undesirable negative outcomes.

In addition to the apparent justification of the actor's behavior at these levels, the negative outcomes are unavoidable. But they are unavoidable for different reasons at each level. At the level of commission, the negative outcomes are beyond the control of the actor since the negative outcomes result from an unforeseeable sequence of events. At the level of justification, the negative outcomes might be conceptualized as unavoidable due to the force of external coercion, i.e. external coercion implies "no choice" on the part of the actor. Apparently, as a result of the information that the actor's behavior is justified and that the negative outcomes are unavoidable, observers hold the actor less responsible for negative outcomes than for positive outcomes. The information that the actor cannot foresee the consequences of his behavior at the level of commission but does foresee the consequences of his behavior at the level of justification does not appear to have a bearing on the effect of outcome valence.

In contrast to the levels of commission and justification, at the level of foreseeability, the predictability of the final outcomes and the intentions of the actor are somewhat open to question because of the ambiguous information in action situations at this level. However, the final outcome is at least under the potential control of the actor and as such, observers were expected to hold the actor more responsible for negative outcomes which could have been avoided than for positive outcomes which may or may not be

perceived as foreseen or anticipated by the actor. Even though the difference was not quite significant, the results suggest that only at the level of foreseeability do observers hold the actor more responsible for negative outcomes than for positive outcomes.

With respect to the effect of intensity of outcomes at each level, the intensity of positive outcomes must be considered separately from the effect of intensity of negative outcomes. Based on differences in the nature of the causal role shared by the actor and the active environment, the effect of intensity of positive outcomes was expected to vary from level to level. Observers' assignment of responsibility as a function of intensity of positive outcomes was expected to be (1) minimal for both low and high positive outcomes at the level of association since the actor's causal role is minimal, (2) greater for high than for low positive outcomes at the level of commission since the actor's behavior is apparently justified, (3) greater for high than for low positive outcomes at the level of foreseeability since observers were expected to convince themselves that they would have caused the positive outcomes and as such would hold the actor more responsible as positive outcomes became more favorable (Walster, 1967), (4) greater for high than for low positive outcomes at the level of justification since the actor's behavior is explicitly justified and the actor foresees the consequences of his behavior, and (5) maximal for both low

and high positive outcomes at the level of intentionality since the causal role of the actor is maximal.

Reviewing the results from level to level, it was found that these expectations were supported only at the levels of association and justification. As expected, outcome intensity had no effect on observers' assignment of responsibility at the level of association while at the level of justification, observers' assignment of responsibility was greater for high positive than for low positive outcomes. Expectations were contradicted at the other three levels of commission, foreseeability, and intentionality. At the level of commission, the results were opposite the prediction, i.e. observers' assignment of responsibility was greater for low than for high positive outcomes. Then at the level of foreseeability, intensity of positive outcomes had no effect on observers' assignment of responsibility. Finally, at the level of intentionality, outcome intensity had an effect where no effect was expected, i.e. observers' responsibility assignment was greater for high than for low positive outcomes.

The unexpected findings at the levels of commission, foreseeability, and intentionality reflect the inadequacy of present explanations. An alternative relationship between the nature of the actor's role at the five levels and the observed effect of intensity of positive outcomes might be proposed. This alternative is based primarily on the dynamics of foreseeability and intentionality. The basic

premise is that information concerning foreseeability and intentionality are intimately related. For positive outcomes, when an actor can foresee the consequences of his behavior, it is likely that the actor will be perceived as intending to produce the final outcomes and as such, will be held more responsible as positive outcomes become more favorable.

Using this premise in evaluating the nature of the actor's role at the five levels of causality, the observed effect of intensity of positive outcomes at each level might be accounted for as follows.

At the level of association, the actor's causal role is minimal and as such, foreseeability and intentionality on the part of the actor are not really an issue to be resolved by the observer. Therefore, observers' assignment of responsibility is not affected by intensity of positive outcomes.

At the level of commission, the positive outcomes are not foreseen and not intended by the actor and as such, observers hold the actor less responsible as these unforeseeable and unintended positive outcomes become more favorable.

At the level of foreseeability, the foreseeability of the final outcome is ambiguous and as such the intentions of the actor are open to question. As a result, observers assigned responsibility in all possible ways as a function of intensity of positive outcomes. That is, some observers

assigned more responsibility as positive outcomes became more favorable, some assigned less responsibility as positive outcomes became more favorable, and some assigned an equal amount of responsibility as positive outcomes became more favorable. The result was no systematic effect due to the intensity of positive outcomes. It appeared then that the information about the actor's causal role was highly ambiguous and open to different interpretations. This suggested interpretability concerning the foreseeability of the final outcome and the intentions of the actor was not evident at the levels of commission, justification, or intentionality where the majority of the observers exhibited the same pattern as reflected by the means.

At the levels of justification and intentionality, the actor can foresee the consequences of his behavior and observers conclude that he intends to produce the positive final outcomes. As such, observers tend to hold the actor more responsible commensurate with outcome favorability.

In summary then, it appears that when an actor does not foresee or intend positive outcomes as at the level of commission, observers hold the actor less responsible as positive outcomes become more favorable. On the other hand, when the outcome is foreseen or intended as at the levels of justification and intentionality, observers hold the actor more responsible as positive outcomes become more favorable. Finally, when there is doubt as to the foreseeability of the outcome and intentions of the actor as at the level of

foreseeability, observers vary in their interpretation of causality and responsibility. As such, no effect for intensity of positive outcomes is indicated.

With respect to the effect of severity of negative outcomes, the guiding principle may be the "avoidability" of the final outcomes rather than the dynamics of foreseeability and intentionality postulated for positive outcomes. The basic premise proposed here is that if negative outcomes are perceived as avoidable, then observers will hold the actor more responsible as these negative outcomes become more severe.

At the levels of association and intentionality, avoidance of the final outcome is not really an issue. At the level of association, the final outcome is completely beyond the control of the actor since his actions are totally unrelated to the occurrence of the negative outcomes. As such, observers were not expected and were not found to hold the actor responsible for either mild or severe negative outcomes. In contrast, at the level of intentionality, the occurrence of the negative outcomes is completely under the control of the actor and as such, observers were expected and were found to hold the actor maximally responsible for both mild and severe negative outcomes.

At the level of commission, the avoidability of the negative outcomes may be an issue. There was a discrepancy between expectation and the observed pattern at the level

of commission. The results suggested, at least, a slight tendency on the part of observers to hold the actor more responsible as negative outcomes became more severe. It was expected that observers would hold the actor less responsible as negative outcomes became more severe since these outcomes appeared to be unavoidable.

However, the fact that observers' assignment of responsibility did tend to be rather minimal regardless of outcome severity reduced the seriousness of this discrepancy. This minimal responsibility assignment simply reflected the notion that actors are not assigned much responsibility for unavoidable negative outcomes. Nevertheless, to find even a slight tendency for responsibility assignment to increase with outcome severity was surprising. This result suggests that as long as the outcome is in any way contingent upon the actor's behavior, observers might perceive the outcome as avoidable and assign responsibility commensurate with outcome severity.

The increase in responsibility assignment as negative outcomes became more severe was found at the level of foreseeability. Such a result would be expected since for action situations at this level, it is fairly clear that the outcomes could have been avoided if the actor had given enough thought to his actions.

In contrast, at the level of justification, even though the negative outcomes are a result of the actor's behavior, observers held the actor less responsible as negative outcomes

became more severe. This pattern at the level of justification possibly reflects the observer's perception that the outcome is more contingent upon the external coercive forces than upon the actor and his behavior. As negative outcomes become more severe, the external coercive forces are perceived as having a more potent influence in producing the final outcome. When the actor knowingly behaves in a manner which results in a severe negative outcome, observers perceive that external forces are powerful and the actor had little choice. Thus, observers perceive less avoidability for severe negative outcomes than mild negative outcomes and as such hold the actor less responsible as these negative outcomes become more severe.

As discussed above, the effect of outcome characteristics on observers' assignment of responsibility depended upon the level of causality. However, as discussed below, when the data for actors and observers were examined, the overall similarity among actors, observers, and SA actors was quite unexpected. Differences were expected based on the theory of defensive attribution, the notion of self-interest, and the theory of objective self-awareness.

Based on defensive attribution theory and the notion that actors are likely to attribute responsibility in terms of their own self-interests, differences were expected between actors and observers. Actors were expected to hold themselves more responsible for positive outcomes, but less

responsible for negative outcomes than observers were expected to hold actors. Thus, as stipulated in Hypothesis 8, responsibility assignment for positive outcomes was expected to be higher for actors than for observers across all five levels of causality. In contrast, Hypothesis 9 stated that responsibility assignment for negative outcomes was expected to be lower for actors than for observers across all five levels of causality. Neither of these hypotheses were supported. Actors did not assign more responsibility than observers for positive outcomes nor less responsibility for negative outcomes across all five levels of causality.

Based on the theory of objective self-awareness, differences across levels were expected between the two groups of actors as well. The supposition was that the SA manipulation would enhance the actors' awareness of themselves in action situations which in turn would increase their acceptance of responsibility. Thus, actors with the SA manipulation should take more responsibility for both positive and negative outcomes than actors without the SA manipulation. This effect was expected across all five levels of causality. Thus, as stipulated in Hypothesis 10, responsibility assignment for positive outcomes was expected to be higher for SA actors than for actors across the five levels of causality. Similarly, Hypothesis 11 stated that responsibility assignment for negative outcomes was expected to be higher for SA actors than for actors across the five

levels of causality. Again, these hypotheses were not confirmed by the data. Actors and SA actors were generally similar in their assignment of responsibility for both positive and negative outcomes across the five levels of causality.

The final two hypotheses concerned the pattern of responsibility assignment by actors within levels of causality. Based on defensive attribution theory and the notion that actors assign responsibility to themselves in accordance with their own self-interests, the actors' pattern of responsibility assignment within any particular level of causality was expected to be affected by outcome characteristics. Actors were expected to hold themselves more responsible for positive outcomes than for negative outcomes (Hypothesis 12). Moreover, actors were expected to hold themselves more responsible as positive outcomes became more favorable, but less responsible as negative outcomes became more severe (Hypothesis 13). Only at the level of justification was this pattern found for actors.

Contrary to all expectations of Hypotheses 8-13 was the finding of an overall similarity between observers and both groups of actors in their responsibility assignment as a function of outcome characteristics at each level of causality. As indicated by the non-significant role x valence, role x level x valence, and role x level x valence x intensity interactions, not only did observers and both groups of actors assign roughly the same amount of responsibility for

positive and negative outcomes across levels in general but also they demonstrated the same pattern of responsibility assignment within each level as a function of outcome characteristics.

Based on the overall similarity among subject groups, little supportive evidence was found for defensive attribution, self-interest, or objective self-awareness. However, at the polar levels of causality, namely association and intentionality, the lack of differences between subject groups was actually not surprising. The causal role shared by the actor and the active environment is so clearly differentiated in action situations at these levels that causal attributions and responsibility assignment would be minimally subject to differential interpretation on the part of actors and observers.

In contrast to these polar levels, the actor and the active environment more clearly share a causal role in producing the final outcomes at the intermediate levels. As such, causal attributions and responsibility assignment would be subject to differential interpretation based on perceptual and motivational differences between actors and observers. These differential interpretations leading to differing patterns of responsibility assignment depending upon subject role were expected particularly at the level of foreseeability where the action situations are highly ambiguous.

Expected differences were not found however to any substantial degree at the three intermediate levels. Thus, there was minor support for the motivational differences predicted by defensive attribution theory and the corresponding notion of self-interest. In fact, at the level of commission, the data suggests that actors operate somewhat against their self-interest. Relative to what observers assigned, actors took less responsibility for positive outcomes and more responsibility for negative outcomes, especially severe negative outcomes. Then at the levels of foreseeability and justification, the only indication for the operation of a self-interest motive was that actors took slightly more responsibility for positive outcomes than observers assigned to actors.

Moreover, the results provide little indication that self-awareness was operative. Only at the level of justification was there an indication that the SA manipulation might be operative to a substantial degree. At this level the difference between actors and SA actors conformed to expectation. SA actors took more responsibility for both positive and negative outcomes than actors. However, at the level of foreseeability, there was no difference between the two groups of actors. Finally, at the level of commission, even though SA actors took more responsibility for positive outcomes than actors, SA actors took less responsibility for negative outcomes than actors which was contrary to the theory of objective self-awareness.

In an attempt to explain the general similarity among the three subject groups as revealed by the lack of significant effects due to role in the analysis of variance, the fundamental conceptual basis for expecting differences in the first place needs to be reviewed. As stated previously, the attribution process was conceptualized as an objective assessment of the cause-and-effect relationships among causal forces (actor and active environment) which serve to explain the occurrence of a particular outcome. These cause-and-effect relationships between actor and active environment are objectively depicted in action situations, but these relationships are different depending upon the level of causality. It was precisely the nature of these inter-causal relationships which were expected to determine the pattern of responsibility assignment as a function of outcome characteristics.

However, the inferences or decisions about causality and responsibility which are based on an objective evaluation of causal inter-relationships depicted in action situations were postulated to be modified by perceptual and/or motivational biases. These biases were postulated to be a function of the attributor's role as either an actor or as an observer. In turn, the operation of these biases were expected to be reflected in differing patterns of responsibility assignment by actors and observers.

The fact that all three subject groups showed the same pattern of responsibility assignment across and within

levels suggests then that these biases were not operative, that is, all subjects were attending to and processing the same information and drawing the same conclusions regarding causality and responsibility irrespective of their role as an actor or as an observer. This seems to imply that all subjects, not just observers, were interpreting and establishing inter-causal relationships from an objective, detached point of view and that the personal subjective involvement expected of actors and observers was not occurring. Thus, all subject groups exhibited similar patterns of responsibility assignment.

This explanation does not necessarily suggest that actors and observers do not have biases depending upon outcome characteristics and manipulation of self-awareness. Other researchers have already demonstrated differences as a function of subject role and objective self-awareness (Duval & Wicklund, 1973; Harris and Harvey, 1975; Harvey, et. al., 1975; Johnson, et. al., 1969; Ross, et. al., 1974). The most potent explanation for the results of this study may be found in its methodology. Specifically, it suggests that the methodology employed in this study was not effective or conducive to the operation of the subjective biases postulated by defensive attribution and perceptual biases postulated by the theory of objective self-awareness. As a result these biases were not operating to supersede, as expected, an objective assessment of causality and

assignment of responsibility.

The question then becomes why did the methodology not elicit these biases. Two answers come immediately to mind regarding the conditions which might be necessary to elicit perceptual and/or motivational biases.

First, it is possible that the instructions given in the present study were too potent in defining the task of the subjects as an "honest" evaluation of responsibility. That is, the instructions may have precluded the operation of subjective biases by stressing the task of the subjects as "honestly indicating the appropriate degree of responsibility." The instructions then may have demanded an objective evaluation of the information and were not nebulous enough to allow the intrusion of personal biases. Therefore, both actors and observers were objectively evaluating the situations and assigning responsibility as dictated by the instructions rather than as dictated by the personal biases and perspectives of their role.

Secondly, relative to the methodology employed in the present study, live behavioral events may be a basic requirement for the elicitation, operation, and demonstration of perceptual and/or motivational biases. It is likely that in live behavioral events, actors and observers will differ in their evaluation of the causal link between observed behavior and observed outcome. Experimentally, past researchers have examined and found actor-observer

differences in live behavioral events (Harris and Harvey, 1975; Harvey, et. al., 1975; Johnson, et. al., 1969; Ross, et. al., 1974). Theoretically, these differences are likely since the actor actually behaves and sees the consequences of his action while the observer actually witnesses the actor's behavior and the resultant outcome.

Whether or not the actor-observer differences postulated by the discrepancy hypothesis, the theory of objective self-awareness, or defensive attribution will depend upon the level of causality is still open to question. Hence, future research should extend the incorporation of the five levels of causality into live behavioral events and examine the effect of outcome characteristics in light of the findings of the present study as well as the findings of Shaw and his associates (Shaw and Reitan, 1969; Shaw and Sulzer, 1964; Sulzer, 1964; 1971).

REFERENCES

- Duval, S., & Wicklund, R.A. Effects of objective self-awareness on attribution of causality. Journal of Experimental Social Psychology, 1973, 9, 17-31.
- Fishbein, M., & Ajzen, I. Attribution of responsibility: A theoretical note. Journal of Experimental Social Psychology, 1973, 9, 148-153.
- Harris, B., & Harvey, J.H. Self-attributed choice as a function of the consequence of a decision. Journal of Personality and Social Psychology, 1975, 31, 1013-1019.
- Harvey, J.H., Harris, B., & Barnes, R.D. Actor-observer differences in the perceptions of responsibility and freedom. Journal of Personality and Social Psychology, 1975, 32, 22-28.
- Heider, F. The Psychology of Interpersonal Relations. New York: Wiley, 1958.
- Johnson, T.J., Feigenbaum, R., & Weiby, M. Some determinants and consequences of the teacher's perception of causation. Journal of Educational Psychology, 1964, 55, 237-246.
- Jones, E.E., & Nisbett, R.E. The Actor and the Observer: Divergent Perceptions of the Causes of Behavior. New York: General Learning Press, 1971.
- Jones, E.E., Rock, L., Shaver, K.G., Goethals, G.R., & Ward, L.M. Pattern of performance and ability attribution: An unexpected primacy effect. Journal of Personality and Social Psychology, 1968, 10, 317-340.

- McArthur, L.Z. The how and what of why: Some determinants and consequences of causal attributions. Unpublished Ph.D. dissertation, Yale University, 1970.
- McArthur, L.Z. The how and what of why: Some determinants and consequences of causal attributions. Journal of Personality and Social Psychology, 1972, 22, 171-193.
- Nisbett, R.E., Caputo, G.C., Legant, P., & Marecek, J. Behavior as seen by the actor and as seen by the observer. Journal of Personality and Social Psychology, 1973, 27, 154-164.
- Ross, L., Bierbrauer, G., & Polly, S. Attribution of educational outcomes by professional and nonprofessional instructors. Journal of Personality and Social Psychology, 1974, 29, 609-618.
- Shaver, K.G. Defensive attribution: Effects of severity and relevance on the responsibility assigned for an accident. Journal of Personality and Social Psychology, 1970, 14, 101-113.
- Shaw, J.I., & Skolnick, P. Attribution of responsibility for a happy accident. Journal of Personality and Social Psychology, 1971, 18, 380-383.
- Shaw, M.E., & Reitan, H.T. Attribution of responsibility as a basis for sanctioning behavior. British Journal of Social and Clinical Psychology, 1969, 8, 217-226.
- Shaw, M.E., & Sulzer, J.L. An empirical test of Heider's levels in attribution of responsibility. Journal of Abnormal and Social Psychology, 1964, 69, 39-46.

- Storms, M.D. Videotape and the attribution process: Reversing actors' and observers' points of view. Journal of Personality and Social Psychology, 1973, 27, 165-175.
- Sulzer, J.L. Attribution of responsibility as a function of the structure, quality, and intensity of the event. Unpublished doctoral dissertation, University of Florida, 1964.
- Sulzer, J.L. Heider's "levels model" of responsibility attribution. Paper presented at the Symposium on Attribution of Responsibility Research, College of William and Mary, Williamsburg, Va., July 29-31, 1971.
- Walster, E. Assignment of responsibility for an accident. Journal of Personality and Social Psychology, 1966, 3, 73-79.
- Walster, E. "Second guessing" important events. Human Relations, 1967, 20, 239-250.
- Wicklund, R.A., & Duval, S. Opinion change and performance facilitation as a result of objective self-awareness. Journal of Experimental Social Psychology, 1971, 7, 319-342.
- Wortman, C.B. Some determinants of perceived control. Journal of Personality and Social Psychology, 1975, 31, 282-294.

APPENDIX A

Pool of 20 action situations with indentification of level of causality, outcome valence, and outcome intensity given in key following the action situations

1. Adam was at the beach with his girl. A woman and her husband all of a sudden came running over to Adam. Both of them were hysterical. They were yelling at Adam telling him that their little boy had gotten carried out by the current and was drowning. The boy's father said he couldn't swim and would kill Adam if he didn't go out and save the boy. Adam spotted a small boat on the beach. Adam ran over to the boat, paddled out, and brought the boy to safety. To what degree is Adam responsible for the boy's life being saved?
2. One morning, while Sam was at school studying for an exam, one of Sam's friends asked Sam's brother to drive him to the auto repair shop to pick up his car that afternoon. Sam's brother said OK, but that afternoon Sam's brother forgot and Sam's friend had to pay for a taxi to go get his car. To what degree is Sam responsible for his friend having to pay for a taxi to go get his car?
3. Roger was cleaning out his garage and found some old shoes. Roger put the old shoes in the trash pile. A hobo who happened to pass by later in the day found the old shoes and kept them for himself. To what degree is Roger responsible for the hobo getting some old shoes?
4. Steve and his girl were sitting next to another man at a bar one night. The man got up to leave and left a quarter on the bar as a tip for the bartender. Steve reached to pick up the quarter, but his girl told him not to take the tip. Steve took the bartender's tip anyway and used it to play the pin-ball machine. To what degree is Steve responsible for the bartender not getting his tip?
5. Keith and his friend went to the Chemistry lab one evening. While heating two chemicals Keith had mixed together, the beaker broke and a fire broke out. Instinctively, Keith started to fight the fire. Fearing an explosion and wanting to save the building, Keith pulled the fire alarm and closed an explosion proof door. The fire alarm went off just in time for Keith's friend to escape through a back door just as the lab exploded. To what degree is Keith responsible for his friend escaping the explosion?
6. One day, Ed called a friend to come over and see his new stereo equipment. On the way, Ed's friend had an automobile accident and was killed. To what degree is Ed responsible for his friend being killed?

7. One day, while Phil was playing golf, Phil's brother called up a friend to go play some tennis. They played 3 sets of tennis and Phil's brother won 2 out of the 3 sets. To what degree is Phil responsible for his brother winning 2 out of the 3 sets of tennis?
8. One day, Jack's girlfriend called him from school and asked Jack to bring a carton of milk over to her apartment. When Jack got to his girl's apartment, he gave his girl's cat a little milk and put the carton of milk he had opened on the kitchen counter. The cat finished the milk quickly and started to purr for some more. Jack left and while no one was there, the cat knocked over the open carton of milk which his girl had to clean up when she got home. To what degree is Jack responsible for his girl having to clean up after the cat when she got home?
9. One morning, Bert was standing around with some people watching an apartment building that was burning down. While watching, a man appeared at a third story window and started to yell for help. Everyone there thought that there was so much fire that no one should go into the building and besides the fire department was on the way. When Bert started to run into the building, a couple of men tried to hold him back, but Bert broke away, ran in, and pulled the man to safety. To what degree is Bert responsible for the man's life being saved?
10. George was at a dance hall one night shooting pool with his friend in a back room. Three men came into the back room and for no apparent reason grabbed George's friend and started to hit him. A big fight started, but George and his friend were unable to escape. During the fight, one of the men pulled a knife and came at George to kill him. George grabbed the knife and stabbed the man to death. To what degree is George responsible for the man's death?
11. One night, while David was eating a steak for supper, David's hungry dog was begging for some of the meat. David had not fed the dog yet. When David finished eating, he left in a hurry without feeding his dog and went to a nearby store to buy a pack of cigarettes. While David was gone, his hungry dog ate some of the tasty meat leftovers. To what degree is David responsible for his dog getting some tasty meat leftovers to eat?
12. One day Ken was talking to a friend on campus and asked him to come over later for a beer. On the way to Ken's apartment, his friend's car stalled and his friend had to walk to a nearby gas station to get some help. To what degree is Ken responsible for his friend's car stalling and having to walk to a gas station for some help?

13. One night after a football game, while Fred was bringing his date home, Fred's brother got into a fight and pushed a man into the street. The man was run over by a speeding automobile and was killed. To what degree is Fred responsible for the man being killed?
14. Wes was being initiated into a fraternity. The fraternity members told Wes he had to spray some black paint on the door of a rival fraternity house. When Wes said no, the fraternity members gathered around Wes and told him they would shave his head and spray black paint all over his car. Wes sprayed black paint on the door which had to be repainted. To what degree is Wes responsible for the door needing to be repainted?
15. Jerry's landlord lent Jerry a fan and told Jerry not to use the air-conditioner because it needed to be serviced and if it broke down it would be expensive to fix. That evening when it was not very hot outside, a friend came over. Instead of turning on the fan, Jerry turned on the air-conditioner which made his friend comfortable during the visit. To what degree is Jerry responsible for his friend being comfortable during the visit?
16. One weekend when Scott was at home visiting his parents, Scott's brother was on campus one night and saw two men attempting to rape a young co-ed. Scott's brother rushed over, chased the men away, and saved the co-ed from being raped. To what degree is Scott responsible for the young co-ed not being raped?
17. Chuck had an old car which had very poor brakes. He was driving his girlfriend to the shopping center one morning when the traffic was pretty heavy. When he came to a busy intersection he could not stop the car and ran into the path of a truck. Chuck's girl was killed in the collision. To what degree is Chuck responsible for his girl being killed in the collision?
18. One weekend, Jim wanted to borrow his girl's car so that he and some of his friends could drive around for a big night on the town. Jim's girlfriend told Jim he could use her car if he changed the oil because she couldn't really afford to pay someone to do it for her. Jim changed the oil which saved his girl a little money. To what degree is Jim responsible for his girl saving a little money?
19. Bob was working at a large apartment complex as a part time custodian. Bob sent a fellow worker to finish cleaning the swimming pool. On the way, the worker spotted a little boy fall into the pool and hit his head on the side of the pool. The worker rushed over and saved the little boy from drowning. To what degree is Bob responsible for the little boy being saved from drowning?

20. Earl was walking downtown with some friends one night and they saw a brawl in an ally. Earl all of a sudden picked up a heavy pipe that was laying on the ground, rushed into the brawl, and killed one of the men by smashing his head in with the pipe. To what degree is Earl responsible for the man's death?

Key

1. Justification	High	Positive
2. Association	Low	Negative
3. Commission	Low	Positive
4. Intentionality	Low	Negative
5. Foreseeability	High	Positive
6. Commission	High	Negative
7. Association	Low	Positive
8. Foreseeability	Low	Negative
9. Intentionality	High	Positive
10. Justification	High	Negative
11. Foreseeability	Low	Positive
12. Commission	Low	Negative
13. Association	High	Negative
14. Justification	Low	Negative
15. Intentionality	Low	Positive
16. Association	High	Positive
17. Foreseeability	High	Negative
18. Justification	Low	Positive
19. Commission	High	Positive
20. Intentionality	High	Negative

The 20 stories are numbered on the slides and the order of the stories is shown in the left hand column on your answer sheet. Please read each story very carefully twice to make sure you understand. Take your time and just tell me when you want to go to the next story. There are not any "right" or "wrong" answers. I merely want you to indicate the degree to which you honestly think you are responsible for what finally happens in each case. To make sure the projector is focused properly for you, I will show you two stories as soon as you are ready. If you have any questions at all, then please ask them and I will be happy to answer them for you.

Story Number	Answer
--------------	--------

1

2

Instructions for observers

You are being asked to participate in a study that is concerned with the degree to which a person honestly thinks other people are responsible for what happens in a variety of situations. You will be asked to read 20 short stories that describe some situations that have involved actual people. These stories will be shown to you with the slide projector and some examples are given below.

When reading each story, you are to consider yourself to be or imagine that you are a witness to each situation. At the end of each story, you are asked to indicate the degree to which you honestly think that the "central character" is responsible for what finally happens. If you think that the central character is responsible for what finally happens, then that means you might thank him for somethin "good" that happens or might blame him for somethin "bad" that happens to varying degrees. Two examples follow and the degree to which you think the central character is responsible may range from 0% to 100% as shown in the scale below.

/-/
0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100

1. Michael's supervisor told him that he would not be recommended for promotion if he did not conduct the fund raising drive for the Boys Club. Michael conducted the fund raising drive and it was a success. To what degree is Michael responsible for the success of the drive?
2. Perry was cutting grass in front of his house. A rock got into the mower and was thrown across the yard and broke a window in the house next door. To what degree is Perry

responsible for the window being broken?

<u>Story Number</u>	<u>Answer</u>
---------------------	---------------

<u>1</u>	_____
----------	-------

<u>2</u>	_____
----------	-------

If you think that the central character is not at all responsible for what finally happened, then indicate 0% as your answer. If you think that the central character is totally responsible for what finally happened, then indicate 100% as your answer. If you think that the central character is only partially responsible for what finally happened, then indicate the degree to which you honestly thin that the central character is responsible, for example 15% or 45% or 80% and so forth.

The 20 stories are numbered on the slides and the order of the stories is shown in the left hand column on your answer sheet. Please read each story very carefully twice to make sure you understand. Take your time and just tell me when you want to go to the next story. There are not any "right" or "wrong" answers. I merely want you to indicate the degree to which you honestly think the central character is responsible for what finally happens in each case. To make sure the projector is focused properly for you, I will show you two stories as soon as you are ready. If you have any questions at all, then please ask them and I will be happy to answer them for you.

<u>Story Number</u>	<u>Answer</u>
---------------------	---------------

<u>1</u>	_____
----------	-------

<u>2</u>	_____
----------	-------

0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100

[illegible]

APPENDIX D

Instructions for performing
the clerical task

The first task I would like you to perform is a clerical task. The task requires that you copy the marks on this IBM sheet onto this blank IBM sheet (the E will point to the sheets). However, just to make the task a little more difficult so that you will have to concentrate a little more, you will only be able to see the sheets by looking in the mirrors because of this partition. Now, the object of the task is to copy correctly as many marks as possible in a two-minute period. The purpose of this task is merely to determine the average number of marks that people can copy correctly in a two-minute period. In a later experiment, the average number of marks copied correctly can be compared to the average number of marks copied correctly by people who are being distracted by tape recordings of people's voices as in an office setting. Are there any questions? Now, before we begin, you can have two minutes to practice (the S will be given a two-minute practice session). Now, are you ready to begin? I will tell you when your two minutes are up. Take your time and work carefully, but try to copy correctly as many marks as you possibly can.

APPENDIX E

Analysis of variance table for the dependent variable AR

<u>Source</u>	<u>df</u>
Between- <u>Ss</u>	59
Role-focus (RF)	2
<u>Ss</u> / RF	57
Within- <u>Ss</u>	1140
Level (L)	4
Valence (V)	1
Intensity (I)	1
L x V	4
L x I	4
V x I	1
L x V x I	4
RF x L	8
RF x V	2
RF x I	2
RF x L x V	8
RF x L x I	8
RF x V x I	2
RF x L x V x I	8
Residual	1083
Total	1199

VITA

David Conner Blouin was born in New Orleans, Louisiana on November 8, 1948. After graduating from Jesuit High School in New Orleans, Louisiana in 1966, he attended Baylor University in Waco, Texas. There he obtained his Bachelor of Science degree in 1970. In the same year he joined the Army National Guard of the State of Louisiana from which he received his honorable discharge in 1976. In September 1971 he enrolled in the Graduate School at Louisiana State University in Baton Rouge. He received his Master of Arts degree from the Department of Psychology in August 1973 and his Master of Applied Statistics from the Department of Experimental Statistics in December 1976. He is a candidate for the Doctor of Philosophy degree at the December 1977 commencement.

EXAMINATION AND THESIS REPORT


Candidate: . David C. Blouin

Major Field: Psychology

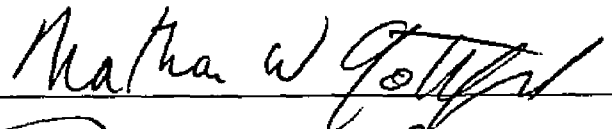
Title of Thesis: Heider's Five Levels of Causality and Assignment of
Responsibility by Actors and Observers

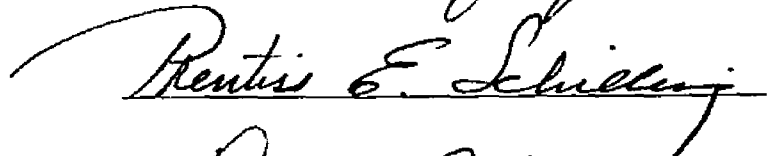
Approved:

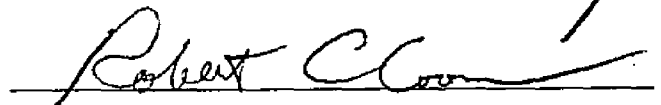

Major Professor and Chairman

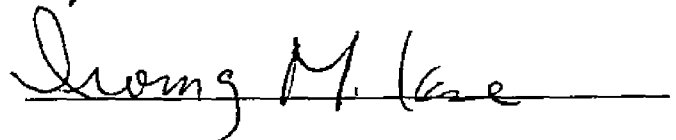

Dean of the Graduate School

EXAMINING COMMITTEE:









Date of Examination:

July 21, 1977